

Low-Income Students, Human Development and Higher Education in South Africa

Opportunities, obstacles and outcomes

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Contents

About the authors	iv
Acknowledgements	v
CHAPTER 1	1
Raising ‘learning outcomes’ for inclusive higher education: The Miratho Project	
CHAPTER 2	17
Capabilities and functionings: Reconceptualising learning outcomes	
CHAPTER 3	35
A challenging context and intersectional conversion factors	
CHAPTER 4	55
The Miratho Capabilitarian Matrix: Evaluating individual achievements and institutional arrangements	
CHAPTER 5	75
Opportunities and obstacles in achieving higher education access	
CHAPTER 6	93
Possibilities for student transformation through capability-enhancing university participation	
CHAPTER 7	115
Pathways for moving on from university	
CHAPTER 8	137
Five students’ life histories: Conversion factors, functionings and inequality	
CHAPTER 9	157
Access, participation and moving on for low-income youth	
Appendix A	165
Appendix B	171
References	183
Index	197

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CHAPTER 1

Raising ‘learning outcomes’ for inclusive higher education

The Miratho Project

In rural South Africa during times of floods some villages become stranded and children cannot reach schools in other villages. To prevent the disruption of their children's education, communities build makeshift bridges, known in Tshivenda as ‘Miratho’. These bridges are rickety, therefore it takes courage on the part of parents and students to traverse them when they might collapse at any moment. Over a period of five years, our research project¹ followed the educational experiences, from leaving school to graduating, of about 60² university students from low-income rural and township households in South Africa. We called the project Miratho because these bridges symbolise the determination of such students and their families to work together to pursue education for a better future for all, in the face of severe obstacles and risks.

Tintswalo is one such student who has pulled through against many odds. His secondary school in a rural village was dilapidated and the only resources were textbooks which he carried with him through the bush to school and back to his home ten kilometres away, so that the goats in the school's village would not eat them during the night. His teachers and an uncle encouraged him, and he achieved the grades to enter ‘Country University’, a rural historically disadvantaged university, to study for a BEd in agriculture and biology. At university, bursaries were delayed, but he managed to eat enough and pay rent with help from his family. Life was tough in his first two years at Country. Learning in English was difficult and his access to computers was limited, but he enjoyed his course, and his friends were like brothers who kept him going. He worked extremely hard, focused on his dreams for a better life and gained in confidence. Tintswalo is now teaching Life Sciences at his old secondary school and is living at his family home. He would like to obtain a PhD. However, as we shall show, by no means have all the students' journeys so far have ended with employment or further study.

1 Our project was funded by the Economic and Social Research Council (ESRC) and the Department for International Development (DFID), now known as the Foreign, Commonwealth and Development Office (grant number ES/NO10094/1), with supplementary funding from the National Research Foundation (NRF) (grant number 86540). The project was funded till September 2020, with a no-cost extension to June 2021.

2 A total of 66 students were included for the first interviews in 2017 and 58 by the last in 2020, with an informal follow-up in 2021. Originally, we had planned for 48 interviews across four universities, but the Thusanani Foundation non-governmental organisation (NGO) asked us to include Rural University. In some universities we were able to recruit more than 12 students.

What the Miratho participants have in common is the battle to get into university, to flourish at university, and to transition to work or further study. As researcher Nic Spaull (in Nxumalo 2021: 1) has pointed out, while degree-entry grade 12 passes have increased by 7% since 2011, university enrolment has grown by just 2.7% since the same year. Spaull (Nxumalo 2021) recounts the 2016 Davis Tax Committee report which gave a stark glimpse into access to higher education: Only 10% of children from the poorest 70% of the population qualify to go to university, compared to 40% of children from the wealthiest 10% of the population. As Spaull (in Nxumalo 2021: 1) explains, ‘The children of the wealthy are likely to get to university because the children of the wealthy are more likely to attend functional schools which give them the passes that they require to gain entry to university’. We can assume that the challenges for the 70% are significant.

The call for funded research proposals in 2015 to which we responded was focused on ‘raising learning outcomes in education systems in challenging contexts’. Miratho had two main aims. First, the project aimed to investigate how complex biographical, socio-economic, policy, and educational factors interact to enable or inhibit pathways for rural and township youth to get into, get on, and get out of higher education with valuable learning outcomes. Second, we aimed to explore a theoretical approach for understanding higher education learning outcomes which considers students from low-income backgrounds who face multi-dimensional challenges when pursuing education. In this book we will discuss what we learned of the students’ lives and how we conceptualised the multi-dimensional benefits that such students value and can accrue from a university education. In parallel, we discuss the limitations on benefiting, resulting from students’ university experiences, their personal circumstances and the broader socio-economic context.

In the rest of this chapter, we first locate our research within a commitment to human development defined as expanding people’s freedoms and opportunities towards improving their well-being. In this definition, higher education is one of society’s public goods. Next, we outline our research methodology and methods and introduce the capability domains which are the product of the research. Finally, we sketch the main argument of the book as it unfolds chapter by chapter.

Rationale for pursuing the human development capability approach (CA)

The United Nations Development Programme (UNDP 2020) defines human development simply:

The human development approach is about expanding the richness of human life, rather than simply the richness of the economy in which human beings live. It is an approach that is focused on creating fair opportunities and choices for all people.

Human development focuses on human flourishing and freedom from poverty and other deprivations. Having followed our South African students from low-income backgrounds through tribulations and some triumphs as they tenaciously pursued a university education for six years or more, our commitment to human development

principles and goals has been strengthened. The Miratho students' experience of poverty is a legacy of colonialism and apartheid, not least in the historical imposition of rural 'bantustans' or 'homelands' set aside for Africans and segregated urban townships (see Ross 1999), which are the sites of the home communities of these students. We aim to produce evidence and an argument for proposing that South African universities' contribution in social transformation and human development should have a dual focus: on mitigating the effects of material deprivations and redistributing material resources more justly, which we understand as integral to the decolonisation project; and, on a wider set of opportunities and freedoms for students from low-income households. In turn, the expansion of such freedoms can have a positive impact on social development and the public good.

The capability approach is grounded in human development. It was developed with a focus on poverty reduction by the welfare economist Amartya Sen (1985, 1999) who is committed to human development and social justice. Later, Martha Nussbaum (1997, 2000, 2003, 2010, 2011) took up Sen's ideas, bringing in a philosophical perspective to the capability approach and producing her own set of ten 'universal' capability dimensions. Since then, the approach has been applied in many social fields, including education.

The capability lens has the power to illuminate both the conscious and deliberative aspects of human agency (the decisions and choices that students make) and how structural inequalities present barriers to students' success. In the terminology of the approach, 'capability' is the opportunity and freedom to make choices in life, while 'functioning' is an achieved being or doing. We employ this approach because it enables us to investigate and evaluate the fair distribution of what matters to people in the form of capabilities and functionings.

As Mahbub ul Haq (2003: 17) elucidates, 'the basic purposes of [human] development is to enlarge people's choices'. While a definition of human development might be simple, the actualisation of such a vision is complex and requires demanding transformations across multiple economic and social arenas. In this book, we argue that the mainstream discourse of learning outcomes in education does not offer sufficiently expansive conceptual and theoretical purchase on the highly complex problem of educational success, which should encompass economic, social, historical-colonial, political, cultural, and psychological aspects of human life. Rather than restricting focus to pre-specified ends of curricula and pedagogy, our conceptualisation is grounded in human development applied to *all* aspects of a university education, linking opportunities, processes, and outcomes.

The Miratho students are human individuals trying to set themselves apart from a crisis of poverty and inequality in the world, exacerbated now by Covid-19. In 2018 the World Bank³ declared that it had set itself the goal of ending extreme poverty by 2030 by reducing the share of the global population living on less than USD 1.90 a day (about ZAR 30), and by increasing the incomes of the poorest 40% of people in every country. Even such modest goals are in serious jeopardy. After 15 years of progress in eradicating poverty, Covid-19 pushed approximately 124 million more people below the poverty line in 2020 (Van Trotsenburg 2021). Calculations indicate that the pandemic's potential impact on multi-dimensional poverty reduction is between 3.6 and 9.9 years

3 <https://openknowledge.worldbank.org/handle/10986/30326>

(Alkire et al. 2021). All over the world, health, educational and social inequalities have been both exposed and worsened, including in South Africa.

Of direct relevance to us is that, within these circumstances, tertiary education is in crisis (World Bank 2021) and students or new graduates who come from low-income households are most vulnerable to the adverse effects of the pandemic and reduced graduate employment opportunities. According to Unesco (2020), during 2020, 166 countries had closed universities, affecting 87% of the world's student population, a staggering 1.52 billion students. Inevitably, the lower the income of a student's background, the more disadvantaged they will be by being unable to attend university. Most obviously, benefiting from digitalised education relies on resources, time and space, even for those who make it into university. So, it has become more urgent to think about economic, social and educational arrangements to support under-represented students to work towards their futures and to challenge the deficit position they are viewed from.

Universities can serve both economic development and social justice and are, therefore, significant for human development (Boni & Walker 2016). Yet, globally, the discourse of human capital dominates; that is, the measure of skills, capacity and attributes of labour which emphasise peoples' productive capacity and earning potential (Becker 1964). Despite challenges to human capital revealing how its analyses recognise neither diversity nor a lack of good jobs (Brown et al. 2020), higher education continues to be portrayed as a vehicle for producing human capital for national and international wealth creation in a world becoming increasingly characterised by technology-dependent knowledge economies (Castells 2017a). A recent study of low- and middle-income countries (Howell et al. 2020) found that universities contribute to sustainable economic development locally and nationally, but do less well on social development and inclusion. Yet the study found that graduates make demands for equality, human rights, health, education and peacebuilding. In low- and middle-income countries there is evidence of wider social and individual benefits. Compared with non-graduates, graduates enjoy social mobility, better health, more stable employment, more autonomous work, higher lifetime earnings, and more engagement in civic affairs (Oketch et al. 2014).

Since the end of apartheid, South Africa has been concerned with expanding higher education for social transformation.⁴ In line with development agendas across the world and on the African continent,⁵ higher education in South Africa is seen as playing a significant role in growing skills and a knowledge economy (National Planning Commission 2012). However, the transition in 1994 from a racially segregated system has generated equity and quality imperatives. Consequently, while human-capital higher education goals have been prioritised in most countries, in South Africa, universities have been closely associated with redressing apartheid's racial inequalities, thereby contributing to social transformation by offering social mobility. According to Cloete and Van Schalkwyk (2017: 4), this preoccupation resulted in the National Commission for Higher Education's (NCHE 1996) framework which focuses on equity and democratisation, while paying virtually no attention to development, research and

4 See Van Schalkwyk et al. (2021) for a recent critique of the muddiness of the transformation discourse notwithstanding real quantitative gains in equity.

5 See, for example, the African Union's Agenda 2063: The Africa We Want (<https://au.int/en/agenda2063/overview>); and, Continental Education Strategy for Africa 2016–2025 (<https://au.int/en/file/33863-doc-cesa-journalvol2finalpdf>)

innovation. Be that as it may, the goal of higher education for socio-economic redress has not yet been achieved. Most students from low-income households in South Africa leave school at grade 10 or earlier and do not go to university (Walker 2018b). The benefits, quality and outcomes of higher education continue to be inequitably distributed (Lewin & Mawoyo 2014). Underpinning our research has been the question of what kind of university educational aims, policies and practices might promote both economic growth and individual prosperity and a broader conception of equality and human flourishing.

Until now there has not been a systematic, integrated, longitudinal mixed-methods South African investigation of the multi-dimensional dynamics or factors shaping and/or inhibiting low-income students' capabilities to access, participate and succeed in a variety of higher education institutions, and to move on to work or further study. Nor do we have much research on rural students or rural universities (although see Mgqwashu et al. 2020; Naidoo et al. 2020; Timmis et al. 2019; Trahar et al. 2020). The Miratho Project for the first time offers fine-grained detail derived from talking to students about how they understand and experience disadvantage, equity and educational quality and about how higher education can foster or frustrate the agency and decision-making processes that empower them to change their own lives and those of others.

While statistics tell of the broad trend of inequalities in South African higher education, our research fills a lacuna about the past experiences and day-to-day realities of undergraduates from low-income households. We offer a rich and nuanced account of how these students grew up, how they made the decision to go to university, and got in; how they survived and studied and nourished their aspirations; and, how they are now sustaining or trying to sustain their aspirations for a better life, including social mobility.

Methodology and methods of data generation

The Miratho Project was designed to investigate the complexities of how higher education opportunities and achievements are distributed among students from challenging low-income households. It also aimed to generate data which illuminate, from a capabilities perspective, what students *do* gain from a university education that is of value to them and what they *should* gain. In this sense our research is 'phronetic' (Flyvbjerg 2001) in that we aim both to develop knowledge that has explanatory power in relation to equity in higher education access, participation and outcomes, and to suggest practical action to address the challenges.

As education researchers we have long been committed to contributing to justice and equality. As the project progressed, we realised the need for increased sensitivity to a decolonial ethic which challenges West-centric knowledge practices. We see this book as a contribution to Africa-centred Southern scholarship. It was important that the original research proposal came from the University of the Free State and that the funded project was led by a South-based scholar as principal investigator (unlike the majority of the projects in the research programme on raising learning outcomes referred to earlier). During the time of the project, South African students were also involved in protests about access to university (#FeesMustFall) and the need to decolonise the discursive practices of universities (#RhodesMustFall). All over the world, educators

and researchers were urged to scrutinise their own discursive practices, while recently there has been a plethora of webinars, blogs and conferences (mostly initiated by the global North) about decolonisation and decoloniality (Mignolo & Walsh 2018).⁶

Writing about decolonising methodology, Tuhiwai Smith (2012: 2) warns that ‘belief in the ideal that benefitting mankind is indeed a primary outcome of scientific research is as much a reflection of ideology as it is of academic training’. Similarly, we should be wary of our version of ‘development’. We should cease to take for granted that we are representatives of communities which are disadvantaged and of those who are stereotyped as lacking epistemic material to contribute to shared knowledge and development outcomes they value. Well-meaning higher education research will carry and represent the residual cultural presence of colonisation (Maldonado-Torres 2007). We understand that our research practices, as well as the substantive focus of our research, should be grounded in advancing ‘authentic humanity’ (Smith 2012: 24). As Tuhiwai Smith (2012: 41) puts it, as researchers we ought to be committed to producing knowledge ‘that helps create spaces for the voices of the silenced to be expressed and “listened to,” and that challenge racism, colonialism and oppression’. Research need not privilege the interests and power of the (academic) researcher but rather reposition those who have been objects of research into ‘questioners, critics, theorists, knowers, and communicators’ (Ndlovu-Gatsheni 2017: 1). Thus, Goetze’s (2018) ‘epistemic humility’ highlights the need to admit the gaps in one’s own interpretive tools as a (decolonial) researcher of the lives of others, primarily referring to those that have experienced epistemic marginalisation.

In particular, a participatory element to the research allowed us to acknowledge low-income students from rural and township areas in South Africa as legitimate producers of higher education knowledge based on how they experienced, understood, learned and talked about exclusions and inclusions at university. Thus, in Miratho, we sought to address misrecognition and research exclusions by contextually understanding the experiences and perceptions of students through their own eyes and with their own voices and by forming and sustaining meaningful relationships with the group over more than four years. Nor was this outsider ‘parachute’ research. Most of the research team are deeply embedded in the context and committed to working for real transformation in higher education in South Africa over time.

Complex datasets were required because the distribution of capabilities is revealed in biographical detail about families and schools; in the students’ lived experience of university educational and social arrangements and of preparing for working life; and in their values and commitments. Insights gained by exploring student pathways, experiences, aspirations and future plans were contextualised by statistical information of trends in university access, participation and outcomes, and by keeping up with the policy context. The multi-method, longitudinal approach generated the following datasets combining fine-grained individual qualitative data, surveys and existing large datasets.

6 For a perspective on global South and global North knowledge and research relations see Walker and Martinez Vargas (2020). Also, while post- and decolonial viewpoints are on the development agenda, there are also criticisms of a co-opted approach in the North which fails to challenge underlying unjust structures.

Table 1.1 Summary of Miratho datasets

246 transcribed life-history interviews with between 58–66 students interviewed four times between 2017 and 2021. There were between 12 and 15 in each of 5 universities, with an overall attrition of 8 students (one of whom died) by 2020.
Participatory research generated three photobooks containing the 'photovoice' stories of 19 students and one Common Book, field notes and transcribed recordings of workshops.
Recordings of three 'Identity Wheel' and 'Imagined Futures' workshops for life-history participants.
Thirty-nine Miratho students completed a pilot survey and 472 students in one university completed the revised student survey.
Use of secondary data: (1) Existing large datasets, specifically South African Higher Education Management and Information System (HEMIS) 2006–2013 and 2007–2013; (2) Statistics in the public domain: Census (2011) and Community Household Survey (2017).

Note on data analysis

Interview transcriptions, participatory research and survey data were analysed as discrete entities. Ethnographic field notes from field trips to interview students and to facilitate participatory research, along with field notes and materials from workshops and secondary quantitative data, were drawn on only to supplement the primary analysis as the processes of analysis and interpretation proceeded. The combined data were further informed by textual data including national development and education policies, media reports, university mission and vision statements, and relevant websites. By contextualising qualitative data within a socio-economic, quantitatively informed understanding, there emerged both a macro view of the educational pathways of the selected student population and fine-grained micro accounts of students' lives. The combined data have been iteratively interrogated, analysed and theorised, and these processes have resulted in the creation of the South African multi-dimensional, intersectional capability-based Miratho Matrix which is a key outcome of the research (see Chapter 4). There now follows a more detailed account of the elements of the research.

The longitudinal life-history interviews

Life-history interviews with students at five different universities took place four times, starting in 2016 with second-year students (third-year at Rural) to allow for the high drop-out rate in the first year and for students to have completed at least one year of university to reflect on. The last interview was in 2020, six years after they had first registered at university. In 2021 we followed up with nearly all the students using WhatsApp. All of these interviews are the centrepiece of the Miratho research project and constitute the main material for the book. They comprise 246 longitudinal life-history interviews whereby we were privileged to capture the life stories of students told in their own distinctive voices. Fine-grained annual life-history data served as a micro lens on well-being, revealing over time the intersections between biographical and material circumstances and social and educational experiences. The data allowed us to chart the complex interactions of agency and conversion factors, including structural constraints or enablers.

Participating students

Access to university students for research purposes is difficult unless the research team

also composed of university staff who teach undergraduates themselves and conduct research at the university. For this reason, the project worked with the youth-led non-profit Thusanani Foundation⁷ which supports students from rural areas and townships to apply for and – to some extent – succeed at university. So, the student research participants were those who had gained access to higher education through the support of the Foundation. Two of the staff joined us for the first round of fieldwork to explain the Miratho Project to students they knew and to help organise the first two years of interviews. The students whom the Foundation was supporting came from rural KwaZulu-Natal (KZN), Limpopo, the Eastern Cape, and some Gauteng townships. The table below offers key information about the students.

Table 1.2 Profile of life-history students

Gender	Female	28
	Male	38
Community	Rural	56
	Township	10
School quintile	1–3	60
	4–2	6
First in extended family to attend university	Yes	35
	No	31
Level of university study	Three-year diploma	12
	Undergraduate degree (three or four years)	54
Broad field of study	Accounting	11
	Education	13
	Commerce and marketing	4
	Construction	4
	Engineering: mechanical, civil, mining	5
	Governance and management: public, tourism	4
	Law	1
	Maths, logistics and computing	8
	Nursing	1
	Natural sciences: biochemistry, chemistry, soil science, genetics	7
	Pharmacy	1
	Social sciences: politics, indigenous knowledge systems, language	7
Award status in 2020–2021: six to seven years after registration	Completed with transcript	38
	Completed but transcript withheld due to debt	5 [#]
	Not completed	13
	Dropped out of studies	2
Work/further study: 2020–2021	Employed	14 [*]
	Continuing undergraduate study	13
	Further study	8
	Internship, training, community service	7
	Unemployed	16 [~]

N=66 for the first interviews in 2017 and 58 by the last in 2020 and for the 2021 contact.

[#] Students do not receive their transcripts if they owe the university money. Without a transcript a graduate cannot be employed as a graduate or enrol for further study.

^{*} 7 in permanent, full-time employment and 7 with contracts and part-time employment.

[~] 14 were graduates and two non-graduates who had dropped out of their studies.

7 <https://thusananifoundation.org/> Thusanani means ‘helping each other’.

After six years of registration (seven for Rural students), 36 of our original Miratho 66 had successfully completed their course. This is consistent with the national average of 58.1% (a combined aggregate of 61.6% for degrees and 47.8% for three-year diplomas) (Jeynes 2016). For now, we draw attention to most students' being from rural communities and most going to schools with limited resources. Over half have a relative who has entered (but may not have completed) higher education before them in their families.

The students attended five diverse universities for which we use pseudonyms and give a short description below to convey the diversity but maintain anonymity.

Table 1.3 The Miratho universities

Pseudonym of university	Description	Number of students retained for interview in 2020
Country University	Comprehensive, rural, formerly disadvantaged	12
City University	Comprehensive, urban, large, formerly advantaged	13
Metro University	Traditional, urban, elite, formerly advantaged	13
Provincial University	Traditional, urban, mid-ranking, formerly advantaged	15
Rural University	Comprehensive, rural, formerly disadvantaged	13
		N=58

Two of the universities (Country and Rural) have lower national status and lower status with employers (Walker & Fongwa 2017). They are also at a distance from major metropolitan centres, have large numbers of low-income students, and are less well-resourced overall. On our fieldwork visits we found the differences to be visible, with Rural being by far the least advantaged of the five universities with the main campus and buildings looking rundown, the residences unattractive, and the campus unsafe. Country and Rural are historically disadvantaged universities. Thus, it is clear that apartheid and colonialism constitute key background factors, shaping the universities as they do today, shaping geographical resources and distribution, and influencing individual lives so that being black⁸ means you are more likely to be from a low-income household.

The conduct of the life-history interviews

The first three interviews (2017, 2018, 2019) were conducted by members of the research team in venues that were accessible to the students near or at their universities. Due to Covid-19 the final interview in 2020 was by telephone and in 2021 we used our Miratho WhatsApp group. Although the geographical distance was great in the case of some universities, most team members visited all universities some time during the project. Such visits were regarded as ethnographic, enriching our understanding of the environment that the students were living and studying in.

For the first and second years of interviews, the Thusanani Foundation encouraged the students to attend the interview, sometimes transporting them. After that, members

8 We would prefer to eschew racial categorisation altogether but it continues to dominate official statistics and daily discourse in South Africa, where 'black' is taken to mean African.

of the research team developed a relationship with the students such that they remained in contact between interviews and arranged for interviews directly with the students. Interviews lasted between an hour and two hours. To signal the value of the time students were giving and the effort they were making, they were offered vouchers for shopping and airtime, as well as refreshments during the interview. Some students travelled significant distances to talk to us and were reimbursed for travel costs.

Each year the research team agreed upon the interview schedule. The first year involved asking students for a good deal of autobiographical information about family, school and community; about their experiences of getting into university; and, about their experiences of leaving home and being at university for a year (or two years in the case of Rural), including all aspects of studying and social and material living (e.g. food and accommodation). In subsequent years we would update information about economic circumstances and how they were progressing with their studies. We also reviewed the questions to probe further as we learned about what students valued about university and about what they were gaining or not gaining from the experience. For example, in 2018 we made a special effort to discuss what knowledge and understanding they were acquiring and how they were acquiring it. The final telephone interview focused on future plans, while the informal follow-up in 2021 focused briefly on who was employed or in further study.

Analysing the life-history data

All life-history interviews were transcribed, and the life-history data were analysed in four different ways:

1. The data were analysed thematically in NVivo qualitative data analysis software. This process began with the research team reading through selected first-year transcripts individually and then discussing these reflectively for emerging themes and agreeing on codes to create a code book as the basis for disaggregating data in NVivo. The code book was revised after the second round of interviews and then sustained for the rest of the project.
2. The identification codes were informed by adopting an inductive approach to prevent over-imposing our own framework onto the findings (Thomas 2006). All interviews were coded using grounded descriptive codes, for example, 'family', 'community', 'school', 'significant others', and so on, and then clustered into themes. The themes were categorised in various ways: as capabilities, as agency, and so on.
3. At this stage, we still maintained the distinction between what Bernstein (2000) calls the internal language of description, which is the language of the conceptual model (in our case, capabilities) and the external language of description, which are the empirical descriptions that students offered in their own words. Adherence to this distinction made us more open to the opportunities and freedoms that were emerging as central to students' well-being, and we made constant modifications to our list in the light of empirical findings. The analysed thematic data lend weight to the Miratho Matrix discussed in Chapter 4.
4. A longitudinal holistic synopsis was created for each student, updated after each interview, which provides a counter to the data fragmented in themes. Here we can see how systemic and structural barriers and opportunities play out in the life of an individual student who exercises agency.

5. Based on the synopses, three conversion factor tables for each student were drawn up whereby data were organised to reveal how all kinds of resources (material, personal, social, educational) available to them interacted and converted into valued beings and doings as they: (a) accessed university; (b) progressed through university; and, (3) moved out of it to further study, work or unemployment. This analysis has shaped this book. See Chapter 3 on conversion factors and Chapters 5, 6 and 7 which are case studies of access, participation and outcomes.
6. Similarly, based on the synopses, hardship tables were drawn up for each student, which categorised them each year according to the degree of hardship they were facing: acute, intermediate or limited. Each category carries a descriptor which supports an analysis of how economic deprivation impacts on students' capacity to engage and succeed in university life. These tables are discussed further in Chapter 3.

Participatory research

This strand of the research aimed to give genuine voice to young people in the research and policy-making process. The result was a set of 'photovoice' stories for 19 individual students bound in three collective books. Students also worked together on one Common Book. The focus was on student conceptualisations of intersectional disadvantages (framed as inclusions and exclusions) in relation to learning outcomes and on exploring student higher education pathways, experiences and outcomes.

The process involved workshops over a four-day period in 2018 in three different provinces. The first day of the workshop was dedicated to working on River of Life drawings. This was the first step of reflecting on students' educational journeys at university and using visual methods to aid in storytelling. The second day was dedicated to brainstorming ideas around experiences of inclusion and exclusion in students' university lives and how these experiences affected and/or continue to affect them. The third day was assigned to photography training, including ethical considerations for taking photographs of people for research and artistic purposes. The fourth day focused on the curation of the photos and the enhancement of their stories. Students reflected on their stories and how to tell them through the photos they took, including giving each photograph a caption and deciding on a title for their photo stories. An exhibition was held in 2019. The photovoice project formed a discrete dataset of interviews and field notes analysed according to our themes of capabilities, agency, participation, voice, and so on. We have not detailed the photovoice project in this book but have written about it elsewhere (Walker & Mathebula 2020).

Student survey

The development of the survey instrument was based on findings from the qualitative data and was first piloted with the Miratho life-history student participants only. The survey was intended to establish which learning outcomes the students valued as functionings for their own well-being. Student biographical data were collected, and they were presented with capability-based dimensions to evaluate (see Chapter 4). The revised survey of 472 final students at Provincial University in 2019 was analysed using SPSS software. All students were anonymised in the data. We draw only lightly on this survey data for the purposes of this book, but it merits further analysis elsewhere.

Ethical conduct of the research

Serious consideration was given to conducting the research according to ethical protocols and a respectful stance towards all participants. The study involved human participants in potentially sensitive areas. In particular, university students were encouraged to disclose aspects of their biographies and to tell us about their experiences, which were often distressing.

Students took part on a voluntary basis. Principles of informed consent operated throughout the project. Information was given in workshops at the start of the project, and information sheets and consent forms were available at interviews. It was clarified that what was said was confidential and that participants would not be identified in any forum or in published work. Moreover, we have given universities pseudonyms and minimal descriptions to keep them anonymous. During the photovoice project, the ethical use of photographs of people was discussed in student workshops, and training was provided in research ethics.

Use of secondary datasets

HEMIS

South African Higher Education Management Information System (HEMIS) data (2006–2013 and 2007–2013) were analysed to generate a national and longitudinal view of inequalities and learning outcomes measured by access and completion rates of rural and township students after eight years (Shepherd 2017). We only touch on this report here. Based on the 2006 and 2007 entering cohort and the generation of categories using postal codes to identify rural from urban and township students, slightly fewer rural students overall entered higher education: 15% rural, 17% township and 68% urban. Women in the 2006 and 2007 cohorts did better across all degree categories. For example, for the 2006 first-time entering cohort in four-year degrees, 63% of the female students compared to 48% of the male students from rural areas graduated after eight years. Students from township areas showed similar trends, with 59% female students compared to 41% male students graduating after eight years. For students from urban areas, 62% female students and 50% male students graduated after six years. Female students enrolled for three-year national diplomas performed much better than their male counterparts.

We have indicative completion figures for four of the five project universities drawing on an analysis of three- and four-year degrees. Diplomas were not analysed for each university as not all the universities offered these. City had the highest completion rate (63%) for the 2007 cohort, followed by Metro. Country and Provincial had much lower completion rates than the other two for both the 2006 and 2007 cohorts. For the 2007 cohort for four-year degrees, City had the highest completion rate (61%) followed by Provincial (52%). Metro had a 48% completion rate, while Country had the lowest completion rate at 41%. In both cohorts the students from urban areas had the highest completion rates (55% for the 2007 cohort). Students from rural areas did better (53% for 2007) than students from townships (51% for the 2007 cohort). Completion rates vary from year to year, so these figures are only indicative of trends, with lower access and completion rates for township and rural students. We can assume that these students face more challenges than other students in completing their degrees and diplomas. In this book we expand qualitatively on this picture.

Statistics

The annual Community Household Survey from 2017 (StatsSA 2017) and the South African Census from 2011 were analysed to track composite education, living conditions and employment trends nationally and at provincial and district level across ten selected indicators drawn from relevant research (Wilson-Strydom & Walker 2019). The analysis incorporated a particular focus on three selected rural districts in Limpopo, KZN and the Eastern Cape, providing additional descriptive and contextual information against which the primary data generated through this study can be interpreted. This data allowed us to see that students came from challenging contexts with regard to educational outcomes, living environment, work, household income, assets and credit, food security, health, transport, technology, and peace, violence and community. The complete secondary dataset, which is drawn on for Chapter 3, is available.

Taken together, these analyses produced fine-grained narratives and statistical accounts and generated a capabilities metric to evaluate learning outcomes. While each analysis has been rigorously undertaken and analysed and interpreted throughout this book, data are selectively drawn upon and brought together to: (1) convey the Miratho students' experience of, access to, participation in, and going out of university; and, (2) justify *both* the argument that learning outcomes can be conceptualised as valued freedoms and opportunities *and* the specific capability-based matrix which is a key product of the research.

Capability-based learning outcomes in the Miratho Matrix

The book unfolds to show how the Miratho Project's exploration of students' experiences of accessing, being at, and leaving university provides a justification for the Miratho Matrix and its set of eight multi-dimensional capability domains. We introduce the set very briefly here (Chapter 4 expands) to orientate readers to the chapters that follow.

The domains were derived both empirically and theoretically. Empirically they were derived from what the students told us in the life-history interviews over four years, through the photovoice element, and from the survey. Theoretically, the domains were derived from research and theory about the effects of living in poverty and about human well-being and flourishing. These capability domains represent the opportunities and freedoms that university education in South Africa should offer students to enable them to choose beings and doings that they value as the basis for evaluating the justice of higher education. Each capability domain has a 'key functioning' which can be conceptualised as a 'learning outcome'. The functionings can be thought of as pertaining both to university students while participating in university and to graduates when they have moved on to life after university as citizens and workers (Chapter 2 elaborates on this argument).

Below we list each capability domain, an indicative cluster of capabilities for each, and the corresponding key functioning.

Epistemic contribution: Being an epistemic contributor

Being an epistemic contributor is being a respected knower, teller and listener at university and in society. In the context of university education, this domain emerged as what Martha Nussbaum calls an 'architectonic' capability; that is, it 'organises and

pervades' all the other capability domains. The knowledge of fields and disciplines that students acquire at university is key to this functioning. Ideally students are transformed by this knowledge which supplies opportunities to reason, understand, apply, examine critically, and so on (see Chapter 6).

Ubuntu: Being connected to and concerned for the well-being of others

As expected, the students brought ubuntu with them to university and exercised it throughout, supporting each other through good and bad times. This capability relates to an Africa-centric ontology and cosmovision, and hence to decoloniality.

Practical reason: Planning a good life

At university and throughout life, students and graduates should have the means and dispositions to form ideas about what (at any time) constitutes for them a good life and to make decisions and take steps to achieve such a life. These means and dispositions include having knowledge and information, as well as holding aspirations, and developing confidence and a sense of independence – all of which a university education can support.

Navigation: Navigating university/society's culture and systems

For most Miratho students, excitement at coming to university gave way to having to deal with an alien environment. All brought this functioning with them and further strengthened it with little assistance from universities, describing it as 'adaptation'. For Tara Yosso (2005), who employs critical race theory, navigation is a capital with which to deal with structural barriers and includes identifying what needs adapting to, seeking and giving support, and staying power.

Narrative: Telling one's own story

Some Miratho students did have the opportunity and freedom to tell their own stories in the photovoice element of the project, and by their own accounts they benefitted significantly. For students from low-income households, the capability of narrative relates strongly to a decolonising ethic. Most university students do not get such an opportunity.

Emotional balance: Dealing with the stress and worry of challenges

Miratho's students lack resources. In turn, a lack of preparedness for university meant that they inevitably faced stressful situations.

Inclusion and participation: Being a respected and participating member of the university and of society

This refers to whether students felt like legitimate and comfortable members of university and able to join in wider activities. It also refers to the extent to which they were encouraged to participate when being taught.

Future work or study: Being employable

It is reasonable to expect that university students, especially those from low-income households without networks and connections, would be given preparation to find a graduate-level job in the public or private sector, self-employment or further study (see Chapter 7).

The book will expand on this capability set and reveal how students were positioned in relation to the key functionings, especially in Chapter 4. Reconceptualising learning outcomes as opportunities and freedoms (capabilities) allowed us to investigate the cognitive, affective, social, material goods and processes which were valued by our students and were available to them, as well as the constraining and enabling conditions of possibility they encountered. Our conceptual standpoint has implications for understanding how universities in South Africa might disrupt or reproduce inequalities in dynamic, intersectional and complex ways.

Conclusion

This chapter has set the scene for our account of the Miratho Project. This account intends first to illuminate how complex biographical, socio-economic, policy, cultural and educational factors intersect, enabling and inhibiting pathways for rural and township youth to get in, get along in, and get out of higher education. Second, we intend to justify a capability-based understanding of higher education learning outcomes which considers students from low-income backgrounds who face multi-dimensional challenges when pursuing education. The arguments develop as the book unfolds. We should also note here that we deliberately use the concept of student hardship to refer to income or money deprivations. We are well aware that the capability approach advocates for a multi-dimensional approach to poverty which goes beyond economic opportunities and might include political poverty, cultural poverty and social exclusions. We adopted the language of hardship (Chapter 2) to signal a lack of material resources for a decent life. It is not surprising that material conditions for learning were overwhelmingly the focus of protests in 2015 and 2016 at historically disadvantaged universities (Motala et al. 2021)

The next three chapters clarify our conceptual grounding and explain our theorising. In Chapter 2 we discuss how the capability approach allowed us to reconceptualise the concept of learning outcomes to encompass the multi-dimensional value of a university education and plurality of valued outcomes for students from low-income backgrounds. These students' experiences are strongly shaped by hardship and other contextual factors, and Chapter 3 explores how the material, social, cultural and personal resources that the students possessed were converted to make university possible. It also shows how a lack of material resources was a severe barrier. While the students participated in university, we talked to them about their experiences and what they valued, and refined the set of capability dimensions. Chapter 4 explains how the capability domains were generated and defines and illustrates them as core to the Miratho Matrix.

Chapters 5, 6 and 7 are three case studies which draw on analysed data from the complete student group: on access to university, on participating in university and on transitioning from university. In Chapter 5 we show that the process of accessing university for the Miratho students (and others like them) was a comparatively common experience and required a clutch of minimal resources to be converted into registering at university. At this point, students had few effective capabilities, but those they had were crucial for getting to university.

Chapter 6 discusses the students' experiences while at university. Epistemic contribution in its widest sense, including both academic and non-academic materials, emerged as 'architectonic' for higher education and we offer evidence for how it suffused and was suffused by other capability dimensions. Most students gained or 'thickened' a capability set from being at university, though there were limits on opportunities that should be addressed by policies and practice. However, Chapter 7 shows that, after six (or seven) years of registration, the capability for work and future study was severely hampered by structural conditions which, in turn, curtailed freedom in other capability dimensions.

The three case studies reveal the overall story of the group. However, for different individuals, resources are converted for a university education differently and the extent to which capabilities are evident as key functionings plays out differently. Chapter 8 reveals this by discussing the narratives of five individual students in some detail. To conclude, in Chapter 9 we develop our normative argument for how to deliberate about university education for students from low-income households. Sufficient material resources are necessary to get into university and flourish while there. Also, the benefits of a university education should be rich and multi-dimensional so that they can result in functionings in all areas of life, including work and future study. Lastly, the inequalities and exclusion of the labour market and pathways to further study must be addressed for the benefits that can accrue from university education to be meaningful.

CHAPTER 2

Capabilities and functionings

Reconceptualising learning outcomes

Miratho students' circumstances are undoubtedly challenging. The result of the multi-dimensional effects of poverty is that they achieve university entrance through serendipity (Chapter 5) whereas their practical and emotional difficulties continue both while at university (Chapter 6) and in the transition to further study or work (Chapter 7). Given this, this chapter argues that the capability approach offers a sound basis for reconceptualising 'learning outcomes' for inclusive higher education because it focuses on people's freedom to be and do what they value. In this view, poverty is reduced when people can freely choose the course of their lives based on what matters to them.

This conceptualisation of poverty and disadvantage is a substantial reconceptualisation of evaluating hardship based solely on tackling economic hardship. In relation to university education, therefore, the capability approach offers a normative framework that is centred on an enriched version of students' lives and values, rather than on a version that reduces learning outcomes to qualification (a proxy for human capital), employment and social mobility, which, in our view, are necessary but not sufficient for equity and more justice. We propose a broader view of the goals and processes of university education.

To develop the argument for our reconceptualisation of learning outcomes the chapter is presented in three main parts. First is an exegesis of the capability approach as it relates to both poverty and higher education settings. In the second part we consider the limitations and challenges of the contemporary discursive practices of learning outcomes, discussing their political nature and the technical-practical challenges of measurement. The third part explains the rationale for reconceptualising learning outcomes as capability-based functionings which reflect inclusive and equitable higher education. We argue that the normative human development-based capability domains with associated functionings generated by the Miratho Project offer rich, multi-dimensional understandings of the educational possibilities for South African university students from low-income households and, indeed, all university students.

Part 1: The capability approach, poverty and higher education

As introduced in Chapter 1, capabilities are the substantive freedoms to lead the kind

of life that a person reasons is a good life. ‘Substantive’ means that the opportunities offered to become or do something are real rather than rhetorical. For example, if all else were equal, passing grade 12 at a specific standard offers one the opportunity and freedom to go to university and become a university student. But, as we shall see in Chapters 3 and 5, this opportunity is reduced or negated when a young person cannot access the information or technology needed to apply or to secure funding: they are *not* free to make a real choice. When freedoms or opportunities are substantive, genuine choices can be made among options that are valuable. Having one option is not to have free choice.

Capabilities which are realised as practices are known as ‘functionings’: what people manage to do (doings) or to be (beings). Achieving a functioning (e.g. access to a university of one’s choice) requires both internal capability (e.g. academic ability, aspirations and determination) and supportive conditions for taking up and exercising that functioning (‘social take-up conditions’). Internal capability and social uptake conditions are combined capabilities (Nussbaum 2000). Claassen (2018: 54) comments that only combined capabilities ‘are full capabilities, providing us with effective freedom, with the real opportunities to do or be something’ and hence crucial for just (higher education) arrangements.

The capability approach provides ‘the opportunity to move from an income-based perspective [of development] to account for the constitutive plurality of human life’ (Chiappero-Martinetti 2000: 207). It allows for a far-reaching, comprehensive representation of human development, well-being and quality of life, and of poverty, deprivation and inequity. It further offers ‘a broad normative framework for the ... design of policies, and proposals about social change in society’ (Robeyns 2005: 94). It places individuals, their freedom and well-being at the centre of analysis and is flexible enough to be applied across contexts, topics and disciplines.

Sen (1999) emphasises the need to create appropriate social arrangements to develop our freedoms to choose a life we each have reason to value, and to identify both opportunities/enablers and obstacles in need of removal. Such in/equality drivers can be used to review existing university data, to identify gaps (such as disability or socio-economic status), to commission further evidence, and to organise dialogues among all university stakeholders as part of transformation planning about the change that is needed and how to get there. This is a real-world process of what Sen (2009) calls working towards ‘imperfect justice’ – comparatively more equality rather than less. In relation to the Miratho Project, based on evidence, we have sought to understand the contextual features that constitute the social and historical conditions shaping opportunities for students. Achieving more higher education justice by expanding people’s capability sets and their functionings (as learning outcomes) is then influenced by students, who, as everyday agents, actors and carriers of personal biographies, negotiate and interact with multiple, intersecting contextual conditions that present opportunities for uptake.

The main task of this part of the chapter is to show, in the context of university education for students from low-income households, how the capability approach expands development outcomes in and through higher education beyond only the economic (essential though this is, as we will show). Further, the capability approach achieves two relevant analytical functions. First, it is strongly focused on poverty reduction and is complementary to and augments an approach based solely on tackling economic hardship. Second, as an expression of the goals of university education,

it allows an enriched normative framework that centres on students' well-being and agency freedoms and achievements.

Poverty reduction and the capability approach

Miratho was designed using the capability approach because it offers a framework for thinking on how university education can support the fulfilment and well-being of students from low-income households. For the capability approach, the human capital conceptualisation of poverty as a lack of economic resources is unidimensional and, therefore, inadequate. Rather, poverty is viewed as multi-dimensional because in many areas of life it limits or prevents opportunities and freedoms for reasonable individuals to choose to be and to do what they value. In this view, poverty reduction and human development are the expansion of opportunities and freedoms to flourish by making life choices, for example, to eat, to be healthy, to forge supportive relationships and to be well educated. For the capability approach, individuals flourish when they are free to choose how they want to function in all areas of life. So, agency is promoted because individuals choose lives (beings and doings) that express their own values and goals. Poverty is reduced when political, economic, social or educational arrangements (policies and practices) expand people's opportunities and freedoms. Poverty is understood as multidimensional and comprehensive beyond only economic opportunities.

It follows that, for the capability approach, the social justice goal is that people lead free and dignified lives in a position of equality with others. Thus, justice evaluations focus on the extent to which people have the same opportunities to be the kind of person they want to be and to do what they want to do. Not having enough income is a structural constraint on opportunities and freedoms and, in the capability approach, such constraints are accounted for in the concept of 'conversion factors'. These factors are not only economic, but include the social, political, cultural, policy and educational parameters, distributions and arrangements that interact with personal biographies and characteristics to enable or constrain capabilities for well-being and flourishing in life.

Unlike Robeyns (2017), we do not separate conversion factors from structural constraints because we understand factors such as race or gender to be a resource for some (and not for others) to be converted into combined capabilities. Moreover, the capability approach's concept of 'adaptive preference' refers to the phenomenon of people being socialised to accept unconsciously the constraints of their deprived circumstances; in other words, they might not aspire to what they do not expect or think achievable. The deprivations of poverty are challenged and reduced when political, economic, social and/or educational policies and practices expand peoples' opportunities and freedoms.

Yet, the processes of gaining freedom of choice are not straightforward. Much of history – even as it now unfolds – tells us that, to gain freedoms, people must aspire and struggle not only against those unwilling to grant them, but also with those who might enable their good lives. At all points, then, relationships between people are pivotal. In this regard Hoffman and Metz (2017: 156) argue that relationality has an intrinsic ethical value, that intuitively valuable capabilities are intrinsically relational, and that an ubuntu ethic 'locates ethical value fundamentally in the relationships between individuals and not just individuals themselves'. They propose an expansion of the capability approach to consider relations between individuals as the locus of ethical value. Although we support this ethical focus on relationships of care and solidarity and the

intrinsic relationality of valuable capabilities, we still include the ethical value of each person's capability set, while acknowledging the 'relational properties of capabilities' (Hoffman & Metz 2017: 161), including those in the Miratho capability set in which ubuntu appears (Chapter 4).

Through a capability approach lens, then, well-being and not being poor are understood as the successful pursuit of goals that are valuable, plural and chosen (Sen 1999). The Miratho Project focused on investigating what counts as inclusive, fair and just when considering the goals and processes of higher education for students from low-income households in South Africa. This pursuit was supported by conceiving of higher education as a site where all students expand capabilities and achieve functionings. We could think of this as producing a different kind of university degree transcript: broad capability dimensions (see Chapter 4) were identified to propose an evaluative framework, the Miratho Matrix, for assessing student advantage or disadvantage. The matrix includes an understanding of the distributive challenges of student poverty and how it affects the marginalisation and continuing struggles of students from low-income households.

Higher education and the capability approach

In human development terms, education has a specific relationship to economic poverty:

The human development approach recognizes education primarily not as an instrument or means of development, but as development itself, while lack of the same constitutes not just a cause of poverty, but poverty itself. Educational deprivation or poverty of education becomes an integral part of human poverty. Accordingly, standard of living, quality of life, human development, human poverty, and so on, are measured in terms of, inter alia, the educational status of the population. (Tilak 2002: 195)

While this quotation refers to schooling, numbers going to higher education are also used as a measure of human development. The capability approach tends to view education as a basic capability (to be educated) which, at any level, affects the development and expansion of capabilities (Walker & Unterhalter 2007). However, Terzi (2007) offers the salient warning that it should not be assumed that education is transformative. If education is of poor quality, it can close rather than open opportunities by, for example, instilling a sense of failure. We might add other reasons for a university student not being able to benefit from their educational experience. As discussed above, they might lack the material resources to participate. Or, given the evidence about the poor quality of schooling in South Africa (Amnesty International 2020), they might arrive under-prepared for university education, despite holding high aspirations, working hard and being determined in the face of structural barriers (Calitz 2018a, 2018b; Spaull 2013; Wilson-Strydom 2015, 2017).

In the growing field of higher education research that takes a capability approach, access to and participation in university is understood normatively as capability expanding. In various countries and university settings, researchers have generated sets of capabilities and associated functionings for higher education (e.g. Calitz 2018a, 2018b; Crosbie 2014; Flores-Crespo 2007; Walker 2006; Walker & Fongwa 2017; Walker & McLean 2013; Wilson-Strydom 2015). As would be expected, there is much

overlap in the sets of capabilities; they tend to be broad and most include a version of the following:

- Knowledge of the field or (inter)discipline being studied: for example, having the opportunity to be critical from a specific perspective;
- practical reason: being free to make well-informed, independent choices about one's life;
- deliberative participation: having opportunities to enter into dialogue and come to agreements with others;
- affiliation: having opportunities to develop social relationships and networks for the benefit of oneself and others;
- respect and dignity: being free from denigration and not denigrating others; and,
- emotional health: being free from fear or anxiety that constrains learning.

Using Nussbaum's (2000) description, these capabilities are thick and vague; that is, they relate to a philosophical view of a dignified human life and they are not over-specified to allow for different worldviews. These existing lists for higher education provided a springboard for Miratho, but, as will be discussed in detail in Chapter 4, dimensions should be carefully and collaboratively developed within contexts, including collecting empirical evidence to reflect the realities and aspirations of the group of interest (Alkire 2002). Nor is the idea of a 'list' necessarily helpful. We have preferred the terms 'capability set' and 'capability domain' to maintain a distance from the language of skills, attributes and competencies which are prevalent terms, especially in education. This latter point complicates the use of capabilities language and what it offers to education so that 'lists' may be misunderstood outside of capability scholarship.

Thus, in the context of higher education, there are often questions about how a set of capabilities differs from a set of 'graduate attributes', 'transferable skills' or 'competencies' which are construed as learning outcomes in educational literature. Bozalek (2013) answers such questions in direct relation to developing graduate attributes for a historically disadvantaged university in South Africa: a capability is focused on social justice whereas graduate attributes and learning outcomes are normally divorced from such considerations. Lozano et al. (2012) explain that a competency approach focuses narrowly on solving specific problems orientated to specific demands, whereas the capability approach considers how a person in their context can choose and lead a life they have reason to value, which may involve drawing on competencies, skills and attributes, but is not reduced to them. The capability approach points normatively and ethically to freedoms and opportunities to make choices about what a good life is, not only at university, but also well beyond graduation. Thus, it offers an enlarged view of the purpose of a university education.

However, for the transformational potential of higher education to be unlocked, the inhibiting effects of complex socio-economic conditions must be understood. Yet, it is mistaken to see the problem as one of resources only, as Bozalek (2013: 74) explains:

The [capability approach] offers a way of taking into account where students and institutions are positioned and what they are able to do with personal, material and social resources, rather than merely looking at what resources people have and assuming that people are equally placed in relation to their resources.

Miratho is distinguished by a special sensitivity to the students in relation to a range of resources which was central to our analysis and appears throughout the book. From an integrated equity–quality perspective, the capability approach has allowed us to think differently about good-quality education and learning outcomes for a specific group of students. Simply put, the following is what we have found about the experiences of students from low-income backgrounds, which will unfold in the detail of the book, providing a strong justification for taking the capability approach:

- The transition to, being at and coming out of university is usually hard, uphill work, for a range of intersecting economic, academic, linguistic, personal and social reasons. These students live for the most part on the margins of university life and often find it difficult to enter the labour market. Mechanisms of inequality operate within and beyond the higher education context to influence learning outcomes.
- Successful transition to and participation in university emerge from the interaction between agency and personal, social and institutional contexts (including access to material resources, curricular and pedagogical arrangements, relationships, and opportunities to speak, such as the Miratho photovoice project).
- Personal attributes of hard work, hope, determination, resilience and wanting to ‘give back’ are highly valued by the students and seen as essential to completing and succeeding in their studies.

These findings suggest that university educational processes should focus on including and encouraging the participation of students who grew up in poverty. Furthermore, such students should be offered a varied, multi-dimensional set of opportunities so that they might flourish and become people who can live rich, fulfilling lives and play a role in building a democratic and decent society as significant development outcomes of higher education. A narrow academic transcript is necessary but far from sufficient for worthwhile development. Instead, we need what Hughes (2021: 1) describes as an ‘elegant, lifeworthy transcript’.

As Chapter 4 will elaborate, we identified broad capability dimensions comprising combined capabilities as the unit for assessing justice in the arena of university education. Our matrix of dimensions helps us to identify practical implications for understanding how universities reproduce inequalities or support equalities or do both in dynamic, intersectional and complex ways. This kind of assessment asks *how* we ought to design institutions and policy to expand effective opportunities, *where* resources are needed, and *what* outcomes are associated with what kinds of interventions to achieve well-being.

Part 2: Problematising ‘learning outcomes’ for inclusive higher education

At this point we have sketched the challenging context of low income in which the Miratho students access and participate in a university education (to be elaborated in Chapter 3). We have also made a case for using the capability approach to frame evaluations of what, for these students, constitute an equitable and good-quality

education. A challenge for the Miratho Project has been to reconceptualise the term ‘learning outcomes’ as ‘an ethical standard for assessing development processes in the expansion of freedoms that people have reason to choose and value’ (Hodgett & Deneulin 2009: 65).

To further elucidate why we have conceptualised learning outcomes in terms of eight broad capability domains and a corresponding set of key functionings (introduced in Chapter 1 and elaborated in Chapter 4), here we critically review the concept of learning outcomes to reveal its shortcomings for our analytical and normative purposes. There are two sections to this part of the chapter. First, despite the fact that the concept of learning outcomes has some educational basis, we discuss how it is not a neutral, apolitical concept, but was taken up with the rise of ‘new managerialism’ to provide evidence for adequate and accountable performances by educators. Second, we discuss the problems of trying to measure learning outcomes.

Sen’s (1999) approach is open and incomplete and does not define which capabilities or functionings to select or how to prioritise or achieve them. Nonetheless, we need to attend to two aspects in our own selection of capabilities and functionings: that the transformation is multi-dimensional and not assessed by a single number or aggregate; and, that the process of selection is important. We are further interested in reclaiming learning outcomes for an expansive approach to student lives in higher education and their well-being and agency. Thus, what is evaluated in the learning outcomes space will be both capabilities and functionings. We also take the view that justice and inclusivity transcend what can be measured, taking into account intangible educational aims that should inform the selection and evaluation of outcomes. Overall, our concern is with how learning outcomes might inflect towards greater justice in a not-yet-transformed higher education system.

The politics of learning outcomes

In the education literature, learning outcomes should be measurable and are typically understood to communicate to students the knowledge, skills, attitudes, values and behaviours they are expected to attain after successful completion of a course, programme or degree. In short, learning outcomes describe what a student demonstrably achieves (Nusche 2008). They are intended to play a key role in organising educational aims, curricula, pedagogy and assessment and to allow the quality of programmes to be extrapolated. The shift from an emphasis on input and processes towards learning outcomes is seen by many educationalists as a shift to a ‘celebration of student learning’ (Allan 1996: 93). Accordingly, in South Africa, outcomes-based education was seen initially as a radical and political departure from apartheid education, although later much criticised (Botha 2002; Jansen 1998).

While now ubiquitous, learning outcomes can be traced back to Ralph Tyler (1949). His focus was on ‘behavioural objectives’ whereby an objective should be sufficiently clear such that it can describe or illustrate change in the student resulting from educational experiences. Tyler (1949: 60) was seeking to identify ‘the kind of behavior the student is expected to acquire so that one could recognize such behavior’. Later, what Allan (1996: 100) called ‘the learning outcomes movement’ distanced itself from ‘objectives’ which were regarded as teacher centred, and ‘learning outcomes’ became a way ‘to recognise student achievement’.

More recently, it has become commonplace to acknowledge that quality resides

not in time in school or university, but in the identification of learning outcomes that generate positive achievements. Certainly, it might appear that thinking in terms of learning outcomes is an answer to what the World Bank (2018) has dubbed a worldwide 'learning crisis', in which years in education is not tantamount to addressing and reducing poverty through good-quality education. From a human capital perspective, Hanushek and Luque (2003) argue that cognitive skill achievement is key to economic growth. Quantitative data based on aggregate scores map proxy indicators of educational achievement. At university level, an institution might look at how many students passed the first year, in which subjects and with what kinds of grades, and how national achievements compare, and so on. Enrolment figures and achievements by race and gender are also collected and quantified in South Africa. Such aggregates should allow comparisons across a system or across systems globally.

Despite the common-sense appearance of learning outcomes and the evidently good intentions of some educationalists, there is controversy. As early as the 1970s Lawrence Stenhouse (1975) developed a critique of the US objectives model, pointing out that they can measure correlates of learning only – not learning per se. His critique calls attention to how routine, basic learning behaviours are most easily measured, risking an under-emphasis of important complex outcomes of education that are the result of long-term iterative processes because they cannot easily be translated into measurable behaviours. This educational anxiety has been repeated since then (e.g. Hussey & Smith 2008; Smyth & Dow 1998).

Stenhouse (1975: 77) further noted that the objectives debate is as much political as educational: demanding objectives constitutes 'an expression of irritation in the face of the problem of accountability in education'. And it is in this situation that many education systems across the world find themselves. During the 1990s when neoliberal policies and practices were entering the university system, learning outcomes as a mode of thinking about the ends of higher education became evident, mainly in the UK and Australia. So, for many who teach in universities they are an expression of the marketisation of universities in which they have taken up what Readings (1996: 22) calls the 'logic of accounting'. Almost universally, organisations distributing public money for education – policymakers, national officials and large international funders of projects and research – have adopted what Marion Young (2009: 269) calls a 'performance-based' approach to evaluating learning outcomes and the 'efficiency' of education systems. The need to develop instruments to obtain measurable, comparable information on what students learn is emphasised (Nusche 2008).

As outcomes-based education was launched in South African schools, Jansen (1998) wrote a prescient and searing criticism offering reasons why this would undermine the quality of teaching and learning. These reasons can be broadly divided into technical and political. The former included that jargon and structures were over-complex, confusing and inaccessible to teachers who were not sufficiently prepared to interpret outcomes-based education in ways which would not simply replicate and worsen an already narrow curriculum. The latter included the false claim that outcomes-based education would enhance the national economy; it is undemocratic, perpetuates an instrumental, trivialised view of knowledge, and sidesteps the question of value. Further criticism of outcomes-based education has included that it has caused a neglect of process (knowledge of learnings, teaching methods and classroom management)

(Botha 2002), it mitigates ‘deep learning’ (Collins 2014), and sidelines the importance of knowledge acquisition (Young & Gamble 2006).

From a critical perspective, higher education measured by learning outcomes has become a commodity. A degree is a product offered to students conceptualised as customers. The long-term, iterative nature of true education is lost as ‘learning’ is disaggregated into distinct, measurable quantities as modules and units of assessment. This process, in turn, allows programmes of study and the staff who teach them to be monitored, audited and evaluated. The political nature of the turn to modularisation, credit accumulation and transferable credits, including the specification of learning outcomes, resides in its association with managerialism, whereby academics are enjoined by managers of the neoliberal university to be transparent and accountable (Hussey & Smith 2002). Strathern (2000: 314) characterises this regulative ethos as one of lost trust and honesty: ‘The language of indicators takes over the language of service. Or, to return to the audit process, the language of accountability takes over the language of trust.’ This situation is conveyed by Hussey and Smith (2002: 232) in a highly disparaging judgement:

[Learning outcomes’] alleged explicit clarity, precision and objectivity are largely spurious. Those academics and teachers who have had to use them have overcome this vacuity either by merely feigning compliance or by implicitly (and perhaps even unconsciously) interpreting them in terms of their existing knowledge and experience. The managers who have insisted upon them, generally in response to the demands of outside agencies, have either not understood them well enough to notice their emptiness, or they too have unwittingly interpreted their meaning in the light of their knowledge of the subjects concerned.

It is worth noting that, in 2010, the Organisation for Economic Co-operation and Development (OECD 2015) launched the Assessment of Learning Outcomes in Higher Education (AHELO) programme. Its principal aim was to ‘provide data to governments, institutions and students themselves on what students at the end of their first (bachelor level) degrees know and are able to do’. It was highly ambitious:

[I]n a period when governance, accountability and transparency in higher education have been strengthened in many countries, and when data on the performance of institutions in research is acknowledged to be powerful and comprehensive, the loud demands for data on learning outcomes, expressed by students, institutional leaders, ministers and business, continue to go unmet. In this key area, there is a continuing and damaging absence of information of a quality to ground credible benchmarking and comparison. Without AHELO, judgements about the quality of teaching and learning at higher education institutions will continue to be made on the basis of flawed rankings, derived not from outcomes, nor even outputs – but from idiosyncratic inputs and reputation surveys. [...] The AHELO seeks to develop a global platform of assessing higher education learning outcomes through which national systems, institutions and individual students can assess and benchmark the skills and the learning outcomes of higher education. ... It will allow governments to evaluate the quality of their tertiary educated human capital.

Despite the high ambition and the language of ‘educated human capital’, after three feasibility studies between 2010 and 2012 (Tremblay et al. 2012) there has been a resounding silence. It seems the programme has floundered as the main study planned for 2015–2020 has not transpired. We can only speculate why. Paul Ashwin (2015) offered an early appraisal, predicting that AHELO would fail because it over-estimated the possible scale and impact; because academics were dismissed as ‘experts’; because its vision of higher education was impoverished, with students constructed as passive acquirers of pre-defined content and as buyers of educational goods; and, because it was over-focused on generic skills (see also Caspersen et al. 2014). His conclusion was:

[T]he seductive vision it [AHELO] offers of a simple and robust measure of the comparative quality of learning outcomes globally is a mirage. Instead we should focus on the more quotidian task of engaging stakeholders internationally in discussions about the development of high-quality undergraduate higher education. (Ashwin 2015: 838)

Undaunted, or perhaps unknowing, the British Council is still proposing investment in ‘student-centric learning outcomes’ to address the educational ravages of Covid-19 (El-Azar & Nelson 2020).

Measurement challenges

Notwithstanding persistent criticism, learning outcomes are now widely used in higher education at the level of individual teaching sessions, modules or units of teaching, and whole courses (Hussey & Smith 2008). Despite the politics of learning outcomes as outlined above, there are justifiable pressures to demonstrate equitable higher education for all students. Yet, there is no agreement on what and how to measure the outcomes of university education so that approaches vary from standardised tests (direct measures) to self-reported outcomes (indirect measures), and there is further variation across professional fields and disciplines (Caspersen et al. 2014). The *what* is learned is especially neglected.

Quantitative data based on aggregate scores offer proxy indicators of educational achievement (e.g. how many students passed grade 12, how many from which kinds of schools achieved university entrance passes). The idea of such aggregate data is to draw comparisons with and between systems. Assessing the quality of higher education ‘requires reliable and valid test instruments’ (Caspersen et al. 2014: 20). In South Africa, the Educational Management Information System (EMIS) (schools) and Higher Education Management Information System (HEMIS) are robust and function well.

However, there are problems. As Ashwin (2020: 58) points out, aggregated quantitative data can look precise but lack any useful meaning for transformative practices, while big data ‘encourages us to focus on what data are actually available rather than on what data are actually important measures of educational quality’. It is easy to confuse what is being measured as an indicator of quality. For example, measuring contact hours says nothing about the quality of learning that took place during this time. Ashwin (2020: 51) concludes that ‘the idea that if we only had more sources of data then we could establish better measures of the quality of education is a chimera’. Education is complex and messy and numbers or combined numbers cannot offer

satisfactory assessments of quality and equality. An incomplete profile of a student's achievements in higher education is offered, as well as a reduced understanding of possible learning outcomes and of how students have been prepared for the challenges of life after graduation.

Even if measures are combined, the question would still be problematic about what is measured and why, or what is not measured (such as social class in South Africa), or how context and processes are accounted for. Taking the point further, Unterhalter's (2017) claim is that numbers are inadequate proxies for relationships in education, which are personal, social and intersectional. Input and output indicators (of the kind used in HEMIS) may not be good proxies for processes of inclusion or equality because equity as numerical parity – for example, the number of women at undergraduate level or the number of black students – neither explains nor undoes, on its own, the structural inequalities women and black students still experience (Unterhalter 2019). Aggregate data are limited in uncovering how higher education reproduces inequalities. For example, more technology-based learning (which we saw rapidly expand due to Covid-19) tends to further advantage already privileged students with easy access to laptops and the internet and with middle-class learning dispositions (Meintjies 2019).

Capability-influenced multi-dimensional well-being indices exist which acknowledge the importance of education and include it as a dedicated dimension. However, indicators used to represent education are often far from reflecting *e*/quality or the influence of education on students' well-being and agency. For example, the Global Multidimensional Poverty Index (OPHI n.d.) has two indicators for education: years of schooling (at least six years completed), and school attendance up to completing grade 8. We could adjust this for higher education and suggest an indicator of completion of a three-year degree or diploma. But such a measure is crude for the complexities of education. A tension emerges, argues Unterhalter (2017), between what is easily measurable (such as aggregate degree grades) and what may be significant but not easily measured (non-cognitive outcomes, relationships, processes). While in South Africa race or gender parity is measured, it is not a measure of substantive equality, 'because it is not a clear enough indicator of the relationships within and beyond education that need to be addressed' to bring about change (Unterhalter 2017: 8). Moreover, a learning outcomes measure should not be separated from difficult-to-measure pedagogical arrangements which contribute substantially to the acquisition of knowledge and skills (Alexander 2015; Stenhouse 1975).

Furthermore, learning outcomes (however measured) in higher education should go beyond a focus on students' intellectual development only. Marcia Baxter Magolda (2004) conducted a longitudinal study of US college students from age 18 to their early 30s. Taking a retrospective view of the period spent in higher education, she evaluated what hindered and what assisted 'becoming an author of one's own life' (Baxter Magolda 2004: xix). She identified three key dimensions: (1) the epistemological dimension as the primary focus of higher education; (2) the intrapersonal dimension, which is not a central focus; and, (3) the interpersonal dimension, which is often seen as being beyond the remit of educators. Baxter Magolda found all three to be crucial. A lack of a sense of internal identity limited both adjudicating knowledge claims and the interpersonal capacity to construct mutual relationships with others in an interdependent world. Higher education learning outcomes then need to include both the cognitive and the non-cognitive.

So, what is needed is an approach which recognises the utility of macro datasets, which track pass rates, grades and completion times by race, subject field, and so on, while still acknowledging measurement limits and gaps. As Young (2011) explains, evaluating improved well-being and agency as learning outcomes requires a different approach. The challenge is how we understand and talk about learning outcomes in a richer and more complex way to connect opportunities with justice-facing outcomes and development goals for all students. By taking capabilities and functionings as focal concepts the list of beings and doings valued by people can be broad, comprehensive, flexible, person-focused, freedom-centred and intrinsically pluralistic.

Part 3: Learning outcomes as capability-based key functionings

Our challenge was to rework the ground of learning outcomes into something normative, ethical, expansive and contextualised. In capability terms ‘learning outcomes’ translates as ‘achieved functionings’ which correspond to capabilities (freedoms, opportunities). As explained and introduced in Chapter 1, Miratho offers one key functioning for each capability domain:

Table 2.1: Functionings as learning outcomes

Key functioning (learning outcome)	Capability domain
Being an epistemic contributor	Epistemic contribution
Being connected to and concerned for the well-being of others	Ubuntu
Planning a good life	Practical reason
Navigating university/society’s culture and systems	Navigation
Telling one’s own story	Narrative
Dealing with the stress and worry of challenges	Emotional balance
Being a respected and participating member of the university/society	Inclusion and participation
Being employable	Future work/study

A detailed discussion of the capabilities and key functionings appears in Chapter 4. As will be seen, the team seriously considered highly specified and measurable functionings. The result of these deliberations was to retreat from this idea and designate one key functioning as an outcome for each capability domain for two main reasons. First, entering the discursive terrain of ‘learning outcomes’ runs the risk of being misinterpreted narrowly, especially if there are lists of behaviours and dispositions. Second, in keeping with the tenets of the capability approach, we intend that local-level agreements be made about how components of the key functionings are elaborated, operationalised and assessed or evaluated. Key functionings are not equivalent to skills or competencies. They are firmly based in empirical evidence from a specific group of students (South African students from low-income households), as well as in the consideration of theories and research focused on social justice, education, poverty and human flourishing. Also, key functionings require interpretation, as will be discussed in Chapter 4, and they relate to beings and doings both while at university and afterwards

as graduates. In the discussion below we attempt to be as clear as possible about the normative basis for our approach.

Our main argument for reconceptualising the concept of learning outcomes as key functionings is that the complex enablements and constraints in the lives of students from low-income households demand a multi-dimensional evaluative framework for judging advantage and disadvantage. This framework is supplied by the capability approach. A broad capability set allows an individual student to be an agent in their own life so that their achievements can be judged in terms of their own values and objectives (Sen 1999) and overall flourishing. Moreover, a capability approach to thinking about the goals and results of university for such students implies removing obstacles in their lives so that they have more freedom to live the kind of life, which, on reflection, they find valuable (Robeyns 2005), while strengthening enabling factors. A focus on capability dimensions means evaluating learning outcomes to include and go well beyond human capital production and economic development. At the individual level, the emphasis is on student well-being and agency rather than student performance on standardised measures (necessary but too narrow).

Clearly, the key functionings we propose are broad and vague; thus operationalisation is complicated and involves agreements among stakeholders about two main questions: What kinds of social and educational arrangements might offer the opportunities and freedoms to achieve the functioning? And, how can judgements be made about whether the functioning has been achieved? Our approach presents operational difficulties – easy answers are not being offered because fine-grained accounting of student well-being is challenging. Indeed, we know that ‘the richness of such theoretical argumentation is not easy to translate into practical terms’ (Chiappero-Martinetti 2000: 209). Nonetheless we have selected capabilities and corresponding functionings to represent complex learning outcomes, sacrificing the comparative simplicity of quantification for a rich approach which examines more closely the conditions, processes and outcomes of equitable and good-quality higher education.

It can be inferred from the discussion in the previous section that our rationale for reconceptualising learning outcomes as capabilities and functionings is grounded in our normative, political and epistemological commitments. Our position is to engage fully in the arduous work of identifying goals for university education, describing how they might be achieved and envisaging the kind of graduate that might be produced. Therefore, we required a broad, rich, multi-dimensional framework for evaluating whether a student from a low-income household has received a just and good-quality education that has, at least somewhat, disrupted the cycle of intergenerational multi-dimensional poverty. We wanted also to foreground these students’ experience so that we could explore how economic, social and educational conditions affected their opportunities to flourish at university and beyond.

Within the human development and capability approach, to be educated is a generative capability. It contributes to the expansion of other valuable capabilities because it has the (unguaranteed) potential to fulfil goals at three levels. First, it can support individual well-being and be transformative in multiple ways, for instance, by allowing social mobility, which is extremely important to low-income, disadvantaged students and their families. Second, it can contribute to social change by producing critical citizens and professionals orientated to the public good. And, third, as an

instrumental investment in human capital which influences economic production and technological and other forms of innovation, it contributes both to the wealth of countries and to the prosperity of individuals. A focus on learning outcomes, as generally understood and used, did not allow us to encompass these multi-dimensional aims.

These priorities have not led us to eschew completely the use of quantitative indicators. For example, we are interested in what can be termed 'threshold' learning outcomes reflecting 'a learning achievement that overcomes a barrier to future opportunity' (Young 2009: 262). One such outcome might be gaining the degree or diploma with an average grade over 60%. This is a basic higher education outcome required to open possibilities for future livelihood and study opportunities. A weak degree or diploma performance is likely to compromise employment and would rule out further study, with the likely outcome of pushing an individual (and their family) back into poverty. It is essential to know the numbers by race, gender or disability of who succeeds in which subject fields as a proxy indicator for equality and learning which, it is assumed, will improve people's lives, increase social mobility, and so on. However, gaining a qualification is a poor proxy for all the benefits that might accrue through a university education; nor, as we noted earlier, does numerical parity of women and men at undergraduate level undo the structural inequalities women still face (Unterhalter 2019).

Aggregate data are one limited way of uncovering how higher education excludes and reproduces inequalities, for example, the impact of technology-based learning on diverse students (Meintjies 2019). Tension always needs to be managed between what is easily measurable and what may be significant but not easily measurable, for example, the quality of relationships or the experience of pedagogical processes.

A capability-based evaluative framework complements these macro datasets by describing quality and equality more robustly and authentically because it refers to a wide range of valued opportunities and achievements that are associated with well-being. Using this approach, we can understand learning outcomes for inclusive higher education not only in terms of numbers or how satisfied students say they are with their university, but also as the limits or constraints on the opportunities that an individual or group may have to realise and to choose the actions, attributes and relationships they have reason to value. The framework then exposes what would need to change and which barriers and obstacles would have to be dismantled for justice in higher education.

Learning outcomes at the level of teaching sessions and modules

Our framework should be seen in the context of social and pedagogical arrangements for offering opportunities and freedoms to choose to achieve a functioning from a wide capability set. An important question for us was the unit of analysis: we wanted to refer to the complete experience of university education in a way which encompassed the individual, their departments and the institution. To take first the level of teaching and learning in which we have a strong interest (see Chapter 6 for an account of students' pedagogical experiences and for a discussion of why epistemic contribution is a basic human capability), Hussey and Smith (2008: 110) argue that learning outcomes are useful at the level of the individual tutor and at the level of modules *if embedded in* (inter)disciplines and fields. Yet, even at the level of a teaching session, 'emergent learning outcomes' should be allowed for:

Good teachers will grasp these occasions as opportunities or ‘learning moments’ ... in order to achieve a new or different learning outcome, or to keep the interest of the class, or bolster the students’ self-esteem, or make them feel part of a learning process and so on. (Hussey & Smith 2008: 110)

Moreover, the tutor should retain the ‘right to judge what value to place upon a possible emergent learning outcome’ (Hussey & Smith 2008: 110). For the level of modules or units, Hussey and Smith (2008: 110) maintain that learning outcomes become less useful. In reality marking is based on markers’ implicit knowledge while the ‘spurious precision’ of the wording in a module document will be ignored.

So, when specifying outcomes at this level, the nature of acquiring knowledge should be considered. To take up Stenhouse’s (1975) criticism of objectives again: they might fit well enough with training for skills and information (using a digital camera, the early stages of learning a musical instrument, remembering chemical elements or dates in history). But such skills and information are subordinate units of knowledge which are generally learned in the context of disciplinary knowledge. The greater challenge, as Stenhouse (1975: 82) points out, is induction into discursive knowledge: ‘The most important characteristic of the knowledge mode is that one can think with it. This is in the nature of knowledge ... that it is a structure to sustain creative thought and provide frameworks for judgement.’ The nature of knowledge acquisition then is unpredictable and elusive. Further, Stenhouse (1975) argues, practice is not improved by increasing clarity about ends but by enabling educators to criticise their own practice. Thus, it is process criteria rather than the pre-specification of learning outcomes that enable educators to reflect on and improve teaching. And so, learning outcomes measures should not be separated from pedagogical arrangements (Alexander 2015) or from justice-facing educational aims.

Learning outcomes at the level of programmes and institutions

Our focus on the enhanced well-being of students while at university and in the rest of their lives took us beyond individual learning outcomes to consider inclusive institutional policies and practices. The Miratho capability-based matrix is intended to be operationalised at different policy and practice micro- and macro-levels with various professionals involved: academics, policymakers, leaders and managers, and administrators. At these levels, precise learning outcomes become even less useful. Hussey and Smith (2008: 114) contend that the use of the term ‘learning outcome’ for what is to be included in a whole programme of study leading to a qualification, such as a degree, ‘constitutes a misuse’ because at this level the statements are so generalised and remote from the actual experience of students and teachers that they become meaningless and irrelevant. At the level of teaching, outcomes might have a role to play, keeping in mind the caveats about how they can distort the nature of knowledge and learning. However, they are not a sufficiently wide lens to capture the complexities of what it takes to attend to supporting the well-being of students such as the Miratho students whose families live in poverty and multi-dimensional deprivation.

A further compelling consideration at this level is the debates about the curriculum in South Africa which provoked student protests in 2015 and 2016. These debates are ongoing and of extreme importance. Le Grange (2018: 4) comments that debates about

the merits and demerits of outcomes-based education have become ‘banal,’ ‘hackneyed’ and ‘unimaginative’. These debates neglect bigger concepts, such as internationalisation, decolonisation, indigenisation and Africanisation, all of which call for serious, deep thought and discussion – what Le Grange (2018: 4) calls ‘complicated conversations’. These conversations, he proposes, could be the ‘impetus for renewal’ in curricula.

Taking this into consideration, we concluded that it was right to refrain from more than a light touch specification in the form of key functionings. We wanted to offer something broad enough to allow institutions to interpret and develop within their own terms of reference and to stimulate imaginative, complicated conversations, rather than close them down. For us, the professional autonomy to come together with others to make agreements about policy and practice, combined with a strong ethic of public accountability, should be the guiding principle for the use of the Miratho capability-based matrix as an institutional evaluative tool. It should stimulate questions around the causes of inequalities in higher education, the obstacles and enablers for student access, participation and achievements, and the availability of capability sets.

In sum, we are proposing a conceptual and theoretical divergence from traditional ways of understanding learning outcomes to focusing on a capability set which is a normative set (specifying what is valuable or desirable) of educational goods (cognitive, affective, social, material). Our position is that the quest for precision and certitude is neither possible nor desirable. Too much emphasis on efficient and effective measurement will inevitably suppress difficult, complicated, elusive questions about the means and ends of university education. Instead, we have explored the extent to which being at university equips low-income students with what they might need and ought to get from higher education to make good or better choices for well-being in their own lives and the lives of others they care about. Considering the options that students possess allowed us to recognise both the conscious and deliberative aspects of their human agency and how universities erect barriers to full justice. From this exploration we extrapolated what they could actually be and do if limits imposed by race, social class, gender and region were mitigated by a good-quality and equitable university education. These possibilities are expressed in the Miratho capability-based matrix introduced in Chapter 1 and elaborated in Chapter 4.

Conclusion

To end, we draw attention to what many Miratho students told us about their lives by quoting Lwazi from Rural University: ‘The struggle never ends, especially for a black child, it never ends. You want to think that you’ve gone over that hill, but there’s another one coming.’ For black South African students from low-income households who want to improve their lives, the obstacles that must be overcome or circumvented are never-ending. Lwazi refers to the phenomenon widely experienced by our students of believing briefly that qualifying for university was the greatest hurdle, when, in fact, it was the beginning of many, further and even more challenging ‘hills’. Being in this plight is not fair. The students’ poverty is a legacy of colonialism and apartheid, yet it was marked that our Miratho students put the onus on themselves to confront extreme problems, rather than rail against their deprivations or analyse the socio-economic

conditions they found themselves in. The students' experiences of hardship are at the forefront of our account to clarify why it is necessary to find a way of evaluating their education that reflects both its instrumental and its intrinsic value (Young 2011).

The Miratho Project has resulted in a capabilitarian matrix which foregrounds capability dimensions with key functionings, opportunity conditions and material factors which we offer for consideration to stakeholders responsible for or interested in good-quality and equitable higher education for students from low-income backgrounds in South Africa. South African policy expects higher education to be a significant engine of development and social mobility. However, the possibilities are severely limited if, as is the case, widespread poverty, unemployment and inequality remain entrenched in the broader society. Higher education cannot be thought about outside of its connectedness to society. Identification of 'learning outcomes' conceptualised narrowly is not sufficient for higher education to be an inclusive pathway to more equality in an unequal society in which students come to university and study in the challenging context of material poverty. Instead, conceptualising university education as expanding multiple capabilities, we need to clarify when capability deprivation is a result of the lack of income resources and when capability deprivation is located in other dimensions such as access to learning, which may or may not be materially shaped. The distinction must be made because resolving material ill-being will not resolve all challenges of learning and achievement at university of diverse students. That said, a lack of income shapes the university project for inclusive development in South Africa. We must be robust about the challenges of student poverty and its repercussions for achieved functionings.

CHAPTER 3

A challenging context and intersectional conversion factors

In the Miratho Project we sought to understand how context, history and intersecting conversion factors turn resources into capabilities and functionings. Conversion factors constitute the conditions which open opportunities and present obstacles for students, influencing their values and their agentic possibilities as creators of personal biographies and mediators of conditions in higher education. Thus, in this chapter, we elaborate on these conversion factors which shape but do not completely determine Miratho students' lives, including how they imagine and realise transformational aspirations. These conversion factors are further illustrated in the case-study chapters which follow (Chapters 5, 6, 7 and 8).

As we noted in Chapter 2, Sen's (1999) concept of conversion factors connects individual lives to social and policy arrangements, structural factors and power relations, which influence everyday lives and our capacity to take advantage of opportunities. If the opportunity to develop capabilities and exercise valued functionings is uneven, we look at wider arrangements for what is unjust and needs to be changed to enable well-being in each life. Resources of different kinds – what Robeyns' (2005: 98) calls 'goods' (we include structures) – are the means to achieve functionings, for example, the 'good' of high-quality schooling. Both material and non-material goods and social arrangements (socially formed and realised) 'shape people's opportunity sets, and the circumstances that influence the choices that people can make [and] should receive a central place in capability evaluations' (Robeyns 2005: 99). Conversion factors are neutral. For example, family, community and schooling are conversion factors which can combine virtuously to support a student's aspirations, or they can work against such aspirations. Or one factor might encourage and another discourage so that conversion factors combine in complex ways for reflexive agents, who attempt to mediate what matters to them in conditions of possibility.

To show this interrelationship of conversion factors and student lives and aspirations, the chapter first considers 'objective conversion factors', drawing on secondary data at national, provincial and district levels and then looks more specifically at higher education. We highlight the challenge of poverty and student hardship and include vivid student data to understand students' lived experiences of getting into, getting through, and getting out of higher education (explored further in the case-study chapters). The chapter then considers 'bottom-up' subjective conversion factors arising

from the specificity of the Miratho students' experiences. The space of higher education intersects with the students' agentic responses to conversion obstacles and enablers, allowing us to see the ongoing structural challenges for human development in the circumstances in which they choose from opportunity sets.

Objective conversion factors: Society and economy

Statistical data reveal objective conversion factors that might constrain higher education opportunities. In 2018, South Africa ranked 113 out of 189 countries on the Human Development Index (CRA 2020: 74). Although this ranking does not look too bad, the World Bank (Sulla & Zikhali 2018) confirms that South Africa is a country with high poverty, high inequality and low social mobility. There are significant gaps in income, wealth and intergenerational endowments, meaning that students from low-income families are unlikely to have a plan B if state or private-sector funding (a loan or bursary) is not forthcoming for their studies. Bhorat (2015) attributes inequality in South Africa to post-1994 skewed endowments (assets that people and households have), which are linked to social mobility and access, or the lack thereof, to positions in both the public and private sector. Higher education constitutes one such intergenerational endowment which can reproduce inequalities.

Opportunities are further shaped by the economic system in which unemployment in 2019 was 29%, while an expanded definition to include discouraged work seekers was 38.5% (CRA 2020: 233). This percentage is likely to increase under Covid conditions. The poverty and inequality burden disproportionately disadvantages black South Africans who are more likely to have less formal education, to be unemployed at various times or to be unskilled or semi-skilled workers. In 2019 average monthly earnings by race were ZAR 3 200 for Africans and ZAR 12 000 for white people (CRA 2020: 415). Further, the Gini coefficient⁹ by race in 2016 was 0.57 for black and 0.41 for white people (CRA 2018: 434). More than half (55%) of South Africans were poor in 2016 based on the upper poverty line,¹⁰ with 25% experiencing food poverty (CRA 2018). There is evidence that this has worsened in the pandemic and that more students are coming from families in which middle-class breadwinners have lost their jobs and cannot pay university fees.

Poverty is partially mitigated by a system of redistributive social grants. In 2018/2019, recipients of various grants (child support, disability, foster care, pensions, etc.) amounted to 17 811 745 South Africans (CRA 2020: 617). Although not generous, the grants are a minimal social safety net. For example, old-age pensions were ZAR 1 780 per month in 2019, while the child support grant was ZAR 425. Due to the Covid-19 pandemic, a monthly social relief of distress grant of ZAR 350 was made available, continuing to the end of March 2021. This may be extended further and may become a basic income grant. In 2021 there was a below-inflation increase to grants. Nonetheless, these redistributive social grants, especially old-age pensions, have benefited many Miratho students' families.

⁹ A statistical measure of income distribution which gauges economic inequality between 1 and 0. The closer the number is to 1, the greater the inequality gap.

¹⁰ At the upper line, individuals can purchase both adequate food and non-food items.

Family and community poverty have a spatial dimension and remain concentrated in previously disadvantaged areas such as the former rural homelands (Ross 1999), as noted in Chapter 1. The majority (59 of the 66) life-history students in the project came from rural areas in Limpopo, KZN and the Eastern Cape. These three provinces had lower GDP per head in 2017 compared to the national average of ZAR 55 199: Eastern Cape ZAR 36 126, Limpopo ZAR 38 869 and KZN ZAR 45 227 (CRA 2020: 104). The expanded unemployment rate pre-Covid was 41.1% in Limpopo, 46.5% in the Eastern Cape, and 42.1% in KZN – all higher than the national average of 38.5% (CRA 2020: 298). Rural provinces are also multi-dimensionally poor. The Quality of Life Index developed by the Centre for Risk Analysis (CRA) based on ten weighted indicators gave the Eastern Cape a score of 5.0, KZN 5.5 and Limpopo 4.9 – all below the national average of 5.7 (CRA 2020: 426).

We collated national, provincial and district data across 11 dimensions which we took to be constitutive of well-being: demographics; educational outcomes; living environment; work; household income; assets and credit; food security; health; transport; technology; and, peace and community. These dimensions individually and collectively confirm that students from Vhembe (Limpopo), Joe Gqabi (Eastern Cape) and Harry Gwala (KZN) districts come from low-income and challenging local contexts (Walker & Wilson-Strydom 2019). Table 3.1¹¹ shows that incomes are low in each of the provinces, with most families on annual incomes of below ZAR 38 400 (well below the national average).

Table 3.1: Annual household income 2018, district and national

Household income	JOE GQABI (EC)	VHEMBE (LP)	HARRY GWALA (KZN)	NATIONAL
No income	15.4%	12.3%	15.0%	15.1%
R 1 – R 4 800	6.7%	8.0%	6.4%	4.5%
R 4 801 – R 9 600	11.3%	14.6%	12.0%	7.4%
R 9 601 – R 19 200	27.2%	24.2%	25.5%	17.1%
R 19 201 – R 38 400	20.8%	20.8%	21.8%	19.0%
R 38 401 – R 76 800	8.2%	8.3%	8.6%	13.0%
R 76 801 – R 153 600	5.3%	5.4%	5.5%	9.3%
R 153 601 – R 307 200	3.2%	4.0%	2.9%	7.2%
R 307 201 – R 614 400	1.4%	1.9%	1.7%	4.7%
R 614 401 – R 1 228 800	0.3%	0.3%	0.3%	1.9%
R 1 228 801 – R 2 457 600	0.2%	0.2%	0.1%	0.6%
R 2 457 601 or more	0.1%	0.1%	0.2%	0.3%
Unspecified	0.0%	0.0%	0.0%	0.0%

¹¹ All our statistical tables are available in Walker and Wilson-Strydom (2019).

Here we elaborate on education, emphasising that education factors do not operate only at the point of access to higher education. Poor schooling, low income in the family, and lack of access to technology persist as challenges throughout degree studies. Even when students have access to adequate state-provided financial aid most feel obliged to reserve money from their bursaries to assist their families. Students might trade-off having their own laptop (which would greatly assist their studies) and providing food for their unemployed family, as Maada (Country) did. A low-income background generates further pressure for students on whom the family's hopes for a better life rest.

Selected figures illustrate district-level education challenges. Table 3.2 shows the proportion of no-fee (quintile 1, 2 and 3 public schools – roughly, community wealth bands). Quintile 4 and 5 schools charge fees and are generally of better quality and better resourced, have better qualified teachers and smaller class sizes.¹² In the three districts from which most Miratho students come there are far fewer well-resourced schools (see Table 1.2). Added to this, the overall level of education of youth is low in the three districts.

Table 3.2: Proportion of schools per quintile, district and national

School quintile	VHEMBE (LP)	JOE GQABI (EC)	HARRY GWALA (KZN)	NATIONAL
N/A	5.7%	0.1%	3%	7.8%
5	0.6%	0.0%	1%	7.7%
4	0.5%	10.5%	3%	6.9%
3	17.4%	36.3%	8%	19.7%
2	63.4%	35.3%	52%	27.0%
1	12.4%	17.8%	34%	30.9%

As Table 3.3 shows, if we drill down to the three districts from which most of the Miratho students came, the youth aspirational window looks narrow. Of students aged 20–24 in Joe Gqabi (Eastern Cape), only 2.1% have any tertiary education, in Harry Gwala (KZN) 2.3%, and in Vhembe (Limpopo) 5.8% – all below the national average of 6.3%.

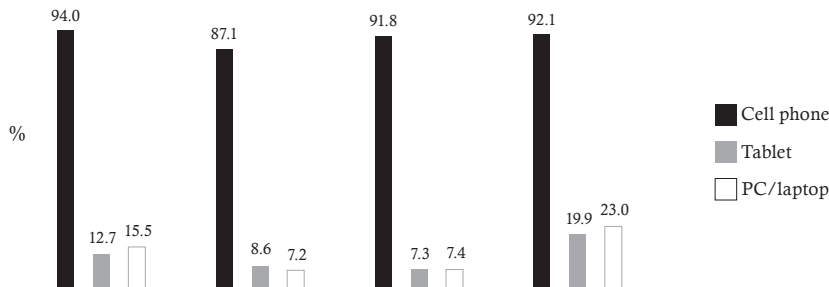
12 South Africa's schooling system is of highly uneven quality. Schools serving poor communities lag far behind well-off schools in learning outcomes so that grade 9 learners in poor schools are approximately three and a half years behind those in well-off schools (see Moses et al. 2017). Only half of the age cohort who enter grade 1 complete 12 years of school (Bisseker et al. 2018). Spaul (2014) writes that we have two public schooling systems: one which is functional, wealthy and able to educate students (about 25% of public schools in quintiles 4 and 5), and the other poor, dysfunctional and unable to equip students with the necessary knowledge and skills they should be acquiring (roughly 75% of public schools). Van Broekhuizen et al. (2016) claim that many of the patterns of university access are strongly influenced by school results: 53% of learners attending quintile 5 schools achieved bachelor passes, but only 8% of learners from quintile 1 schools. There are of course notable exceptions to the results obtained by lower-quintile schools. But the point is that these schools perform well – against all odds – and that schools and the schooling system do influence post-grade 12 opportunities.

Table 3.3: Highest education level of youth aged 20–24, district and national

Education level	VHEMBE (LP)	JOE GQABI (EC)	HARRY GWALA (KZN)	NATIONAL
Any tertiary	2.1%	5.8%	2.3%	6.3%
Matric/matric equivalent	23.8%	33.8%	29.6%	43.1%
Grade 10/11	37.2%	39.0%	38.6%	30.5%
Grade 9	11.2%	8.6%	10.6%	6.7%
Less than grade 9	25.8%	12.9%	19.0%	13.3%

Van Broekhuizen et al. (2016) show that, of the learners who achieved an average grade 12 mark of 60% or above, 21% came from the Western Cape (one of the two richest provinces) and only 6% and 7% from Limpopo and the Eastern Cape respectively. Of course, this does not mean that every individual in these districts is poor, or that every family is without experience of tertiary education, or that every student attended a low-quality, low-quintile public school (Table 1.2). But it does point to the greater likelihood of conversion factors which will impede individual agency to negotiate higher education, including valuing higher education, aspirations, and awareness of what is possible. The rural context, we suggest, is an objective conversion factor that influences university access and success.

Figure 3.1 shows access to technology, which, in turn, affects learning at school and then at university, especially in the crucial first year of study.

Figure 3.1: Access to cell phone, tablet, PC/laptop 2018, district and national

Relevant to participation in higher education, in 2018, only 4.1% of households in the Eastern Cape, 1.7% in Limpopo, and 5.6% in KZN had home access to the internet compared to a national average of 10.4%. In contrast, 53.7%, 43.3% and 54.9% respectively used mobile devices compared to a national average of 60.1% (CRA 2019: 731). These statistics reflect the situation at the time for Miratho students who struggled with internet and computer access at home and school. Post-Covid access to technology may improve because of the shift towards online or hybrid education.

Historical factors must be added to this depiction of multi-dimensional deprivations (Ross 1999). Colonial values, curriculum and pedagogy, segregated schools, under-funded black schools, and rural homelands are the legacy of colonialism and

apartheid. These persist in the unequal resourcing of schools (except for middle-class parents who can supplement state funding) and unequal distribution of opportunities to black and rural South Africans, as well as in sustaining North-centric curricula in schools and universities (Timmis et al. 2019). Carmen Martinez-Vargas (2022) thus conceptualises ‘colonial conversion factors’, which are political in intent and describe current inequalities between the global North and global South. These factors are formed by historical events that ‘confer huge advantages on those that were part of the powerful colonial system in the past and continue to be part of its neo-colonial system in the present’. Martinez-Vargas (2022) considers that constrained humanity and the denial of basic dignity are what the term ‘colonial’ should refer to. Her colonial conversion factors work equally to capture historical and current political and economic inequalities in a country where ‘internal colonialization’ (Wolpe 1975) operated to produce a ‘global North’ of white privilege and a ‘global South’ of black disadvantage and an entanglement of histories and places in South Africa. We cannot understand conversion factors and question injustices without attention to colonial and apartheid histories and the continuing systemic and individual effects on human dignity. This point applies to higher education, to which we now turn.

Objective conversion factors: University¹³

Universities do not stand apart from society and the inequalities described above. South African higher education has been described as having low participation and high attrition, with pervasive systemic inequalities evident at both individual and institutional levels. Historical and colonial structures of racism are reflected in the latest higher education participation rates which, while improving, still show a considerable black–white gap. In 2017, these were 18.1% for black people (up from 11.1% in 2002) and 55.9% for white people (down from 63.4% in 2002), with an average participation rate of 20.6% (CRA 2020: 488).

Access and progress are being supported by the recent policy shift at the end of 2017 to allow fees-free higher education for all students on family incomes below ZAR 350 000 per annum. However, in 2021 there were signs of historical debt, with the National Student Financial Aid Scheme (NSFAS) struggling to fund all students who qualified, and resurgent student protests. But the new policy applied only to first-time entering students from 2018 and hence not to the Miratho students who still had to pay fees, which are high relative to income (see Table 3.4).

13 For a detailed statistical analysis of higher education 2005–2017 see Essop (2020) and annual reports from the CRA.

Table 3.4: Sample of university fees, 2017
(at the time of the first Miratho life-history interviews)

University	BA	BCom	BSc	LLB	BEng
University of Cape Town	R49 440	R53 340– R73 720	R54 000	R50 200	R55 460– R57 180
University of the Witwatersrand	R36 330– R46 790	R44 910– R46 810	R44 610	R48 550	R43 580– R50 360
Stellenbosch University	R35 387	R35 332	R42 783	R42 374	R52 057
University of KZN	R33 540– R46 700	R39 170	R30 940– R39 340	R36 500– R38 728	R37 110– R40 000
University of Pretoria	R33 000– R39 000	R39 000– R45 000	R32 000– R60 000	R36 000– R38 000	R41 000– R51 000
Rhodes University	R40 176	R43 956	R41 796	R45 068	N/A
University of Johannesburg	R34 500– R38 800	R35 000– R40 000	R33 000– R55 000	R31 800– R36 500	R37 200– R46 000
North-West University	R34 245	R37 205– R40 065	R35 435– R43 665	R37 205	R43 270

(Source: BusinessTech 2017)

Miratho students could apply for state financial aid loans, and many did, but these were not guaranteed and some struggled on without funding, as the case-study chapters will show.

Nationally, there are more black students than white by headcount at university. The headcount enrolment by race in 2017 was 763 767 black students (up from 268 144 in 1995) and 148 802 white students (down from 209 640 in 1995) (CRA 2020: 490–491). In 2017 black students comprised 74.3% and white students 14.5% (CRA 2020: 491). Nationally, women have been doing better than men in higher education, as we noted in Chapter 1. Relative to their male counterparts 27% more female students qualified for university, 34% more enrolled for university, 56% more completed any undergraduate qualification and 66% more attained a bachelor's degree (Van Broekhuizen & Spaull 2017). In 2017 there were more women (58.5%) than men (41.5%) in undergraduate higher education at all university types, while the participation rate by gender in 2017 was 24% for females and 17% for males (Essop 2020: 25–26). Based on our own tables, in all three provinces gender differences in 2018 could be observed at the schooling level in favour of males but shifted in upper secondary and tertiary in favour of females. Thus, in Vhembe, while 6.4% of males attained grade 9 and only 4.7% of females, by grade 12 this had reversed, with 14.8% of males and 17% of females obtaining grade 12, and 2.5% of males and 3.4% of females attaining any tertiary education. In Harry Gwala and Joe Gqabi the picture is similar, with more females obtaining grade 12 and then entering tertiary education.

Based on the numbers, we might expect that students would not encounter race or gender discrimination. However, how these factors intersect with income and rurality or township origins changes the picture as can be seen in the more nuanced life-history narrative data and in the case-study chapters. Nor does parity of numbers tell the full story of substantive gender equality (Walker 2018a). We thus see narrative data as a crucial companion for these numbers – real people in their universities and social contexts.

Success rates (the total number of courses passed by students in a given academic year relative to course enrolments) are still higher for white students – 85% in 2017 compared to 75% for African students (CRA 2019: 498). In addition, the higher education system is historically stratified, a colonial conversion factor. Under apartheid, higher education institutions were designed to serve one of four apartheid racial groups mentioned in Chapter 1 ('Africans', 'Coloureds', 'Indians' and 'Whites'). Based on the flawed apartheid ideology of 'separate but equal', 19 higher education institutions (universities and technikons) for the exclusive use of Whites, two for Coloureds, two for Indians, and six for Africans had been established by 1985. Thus, higher education pre-1994 was seriously skewed towards the advantage of white South Africans and structured to entrench racial ideology.

In the early 2000s a process of institutional mergers produced 26 public universities: 12 'traditional' universities, eight universities of technology and six comprehensive universities (see Council on Higher Education [CHE] 2004). While, to some extent, the system has been restructured to break down apartheid barriers, previously advantaged universities continue to be advantaged in the present. For instance, only formerly white, elite universities make it into the top 500 Times Higher Education rankings. Most formerly white (advantaged) universities are better placed to sustain their historical advantage and to retain a more middle-class intake, leaving less advantaged universities (historically black, especially in rural areas) to provide access to students from disadvantaged backgrounds. University status then plays out to reproduce privilege (Walker & Fongwa 2017).

These historical inequalities led Higher Education South Africa (HESA) (now called Universities South Africa [USAf]), the national organisation of all vice-chancellors, to comment:

The continued under-developed macro-influenced institutional capacities of historically black institutions must be emphasized: providing access to rural poor and working class black students, inadequate state support for the historically black institutions to equalize the quality of undergraduate provision compromises their ability to facilitate equality of opportunity and outcomes. (HESA 2014: 10)

The Green Paper which preceded the 2013 post-compulsory education policy White Paper similarly noted:

A diverse university system steeped in inequality is the product of apartheid education policies, and that reality still confronts us today. While our leading universities are internationally respected, our historically black universities continue to face severe financial, human, infrastructure, and other resource constraints. (DHET 2012: 11)

The minimum grade 12 qualification of a bachelor pass will not ensure access to the best universities or to the most prestigious degree programmes such as medicine. For many, only a diploma pass is achieved allowing admission to complete a three-year higher education diploma. Thus, historical factors of race- and wealth-based advantage and stratification work as conversion factors for access, for academic progress at university and then for post-university opportunities. For instance, the admissions score (APS)¹⁴ required for admission varies from university to university and is not nationally set (Table 3.5).

Table 3.5: APS required for admission across three universities of different status, 2016 entry

Status	Metro	Provincial	Country
Education faculty	34+	30	26
Natural sciences faculty	40–43	30–34	23–26
Law faculty	43+	33	26

(Source: Anonymised university webpages)

Advantaged universities have more high-achieving students who have attended the best schools and who, therefore, presumably have the widest choice of universities. On the other hand, historically disadvantaged universities have the largest numbers of financial-aid students, who are likely to have attended lower-quintile schools (Cooper 2015; Van Broekhuizen et al. 2016; Walker 2020b; Walker & Fongwa 2017).

Nonetheless, prospective students from low-income households are supported by enabling higher education policy. The White Paper on Higher Education (Department of Education [DOE] 1997) and the Higher Education Act of 1997 map out a broad transformation agenda underpinned by core principles of equity (of access and the distribution of success along lines of race, gender, class and geography) and redress of past inequalities. The broad transformation agenda declares that higher education is to be transformed to meet the challenges of a new non-racial, non-sexist and democratic society committed to equity, justice and a better life for all. Further, the NSFAS was introduced in 1999 by government with the aim of increasing access to higher education for previously disadvantaged groups.¹⁵ Currently, students qualify for a non-repayable grant if their family income is below ZAR 350 000 pa (up from ZAR 122 000 in 2017). There are some conditions attached, such as the requirement that a certain number of modules are passed each year, so that failing modules can be financially disastrous when basic needs cannot be met without this funding. The NSFAS also does not settle any historical fee debt which may have been incurred before NSFAS funding was awarded.

Post-1994 opportunities to access university and to achieve a higher education qualification have increased. Among the Miratho life-history students, 34 students of the initial 66 had a relative who had been or was in higher education, a sign of higher

14 APS is an admission points score in which each university weighs grade 12 subjects to arrive at an AP minimum for each degree. There is no nationally mandated way of doing this, leaving each university to devise its own system.

15 Between 2010 and 2017, a total of ZAR 70.8 billion in NSFAS funding was granted to more than three million students. In 2017, 85.7% of the money allocated to NSFAS was granted to university students while the rest (14.3%) was granted to students at Technical Vocational Education and Training (TVET) colleges. See Stats SA, *Education Series Volume V: Higher Education and Skills in South Africa, 2017* <http://www.statssa.gov.za/?p=12049>

education equity shifts post-1994. Of these, some had completed higher education and were working; some had completed and were unemployed; others had dropped out through failing university modules and/or funding challenges. While over half of Miratho students had a forerunner in higher education within their extended families as an enabling conversion factor, they are still unusual within their cohort of young people from low-income households. Their narratives reveal starkly why the barriers to accessing and succeeding at university can be almost insurmountable.

Educational success is instrumentally extremely important for students from low-income households: it is the key route out of family poverty. This is substantiated by Moses et al. (2017) who found that, on average, tertiary education graduates in South Africa have an employment probability of nearly 90% compared to only 5% for those completing 12 years of schooling. One family member going to university is one of the few chances to improve the circumstances of the whole extended family. Thus, families make sacrifices and have high expectations of the university student in the family. Access to and successful participation in higher levels of education – therefore (potentially) access to stable labour market income – is the means to households' achieving economic security over time (Sulla & Zikhali 2018). The Miratho students were motivated not only by their own 'brighter future', but also by the futures of their families and often the future of their communities, which they envisaged supporting when they were qualified and earning. In South Africa, higher education – more than school education – contributes to social mobility pathways through enhanced job prospects in the face of interlocking South African challenges of poverty, inequality, and unemployment. In Chapters 7 and 8 we discuss Miratho students' achievements and disappointments six or seven years after arriving at university.

Overall, then, the background circumstances of the Miratho life-history students, which form the backdrop during and after their studies, are objectively challenging with multiple conversion factors at work. There are both obstacles and enablers to envisaging and taking up opportunities, almost certainly more of the former than the latter. The socio-economic environment presents significant challenges for young people coming from low-income households to access and succeed in higher education, including having an awareness of what is possible and developing and revising aspirations, especially if someone in the extended family has been or is at university.

Foregrounding poverty

From our capabilitarian perspective, we fully acknowledge that deprivation is multi-dimensional. However, material poverty represents a major obstacle to student chances or equality with other more privileged students in opportunities and outcomes. As we have seen, most of the Miratho students came from rural areas where unemployment is high and wages are low for unskilled workers. They often lived with or close to extended families (e.g. grandmother, cousins, siblings, uncle, siblings' children) which can typically be around seven members, in some cases up to 15. Households were often headed by either a grandmother, single mother or pensioner parents. Several students, often at an early age, had one or both parents who had died.

While the capability approach conceptualises poverty as a lack of opportunities and freedom rather than a lack of resources, ill-being will certainly result from income

deprivation. Van der Hoeven (2021) emphasises that income inequality can restrict agency for the individual and households to expand human capabilities. He notes the UNDP argument that equal incomes may not translate into equal functionings but severe income inequality can significantly reduce decent living. Wolff et al. (2015) thus propose retaining the concept of poverty over capability deprivation, while still acknowledging that eliminating income- and wealth-based poverty will not resolve all questions of social justice and equality. For example, if a student has a grant sufficient to meet the cost of fees, adequate material needs and learning resources, they would still need to overcome other hurdles such as a lack of familiarity with academic mores because they are the first in their family to go to university, or they might feel alienated in a formerly advantaged university, and so they must still work hard to profit from the funding. Nonetheless, freed from money worries, they would have peace of mind, they would have enough to eat, could afford textbooks and so focus more easily on their academic work. But most of the Miratho students were not in this relatively favourable position, at least initially. At home, they were accustomed to no school fees, free school meals and free textbooks, but at university a lack of money stymied their ability to make choices that supported successful participation at university. We have opted for the concept of student hardship which is material and economic but which equally has social and cultural and political effects, to distinguish it from broader poverty in the society, which is more severe.

Constant worry about money can generate harmful adaptation in so far as students focus their concerns on their basic material security and away from higher education achievement, narrowing their 'human potential' capability goals and limiting their agency (Austin 2016: 229). Austin (2016: 230) provides an example of the capability for practical reason and explains that, if practical reasoning about one's life plan is focused on subsistence goals (and necessarily on short-term planning), this 'represents constrained agency and narrower horizons of aspiration' and hence a constraint on capability. We see this vividly in our data where, for the first year or two, students' almost sole focus is on their financial struggles, while being educated is reduced to passing examinations. Once they secured funding (and not all do), we found the focus enlarging dramatically. As Austin (2016: 231) emphasises, 'economic hard times do have an effect on conceptions of value, and the effect amounts to a downgrading of goals and aspirations' and, in our case, engagement in quality learning. This reduction of agency, in turn, affects deciding and making choices about what would be best to do. Thus, even if income is only one means to a good life, it is instrumentally significant.

Adequate material resources constitute a condition for outcomes. The Miratho Matrix (Chapter 4) thus includes the provision of adequate resources to support physical well-being (nourishment, shelter); to fund affordable and safe transport; to provide clothing sufficient 'to appear in public without shame'; to buy study materials (including a laptop and Wi-Fi); to enable hospitality and sharing; and, for mental well-being (i.e. not being constantly stressed about money or studies).

The data makes clear that enough material resources to make choices about university study therefore is a necessary if not sufficient condition for student learning achievements. We understand student poverty as having both an objective (lack of income) and a subjective (socio-cultural and psychological) dimension in terms of how poverty is experienced (Lotter 2016). Our analysis considers both the external goods that students have and expands the analytical lens to include what students think and feel about their

lives at university when experienced in conditions of inadequate income. Indubitably, their education is compromised by constant worry and precarity; by the humiliation associated with not affording more than one pair of jeans or shoes; or by having to squat in another's room or as one of three students in a single, small room.

Given these considerations, an income-based analysis of the students' poverty complements our capabilities analysis. For the purposes of understanding the hardships caused by poverty that faced the Miratho students, we conceptualised three broad hardship categories: acute, intermediate, and limited, with descriptions specific to higher education. The term 'hardship' is intended to convey both the lack of material resources and the effect on the students' ability to be included in valuable university learning processes and the social life of the university (Lotter 2016). We aim to reflect the multiplicity of inequality and poverty factors that have consequences for the experiences, opportunities and achievements throughout the university careers of South African students from low-income households.

The descriptors below of the categories of hardship are derived from the life-history interviews. There are some caveats, though. It is important to establish that these categories and descriptions relate specifically to being a university student in South Africa at a particular moment in time – they cannot be transposed to hardship in broader society. For example, not having reasonable access to a laptop may not make one objectively poor in the wider society, but in the context of university education which requires technology access for success (and even more so in pandemic and post-pandemic times), it is a real hardship. Nor are the categories exact, for example, linking each to an actual amount of money, but rather broadly explanatory of student states in relation to hardship. All the categories are dynamic, for example, getting a bursary could move a student from acute to intermediate; the death of a family breadwinner can shift a student from limited to intermediate. Moreover, poverty, as experienced in the day-to-day realities of the Miratho students, has relational elements: it is mitigated if a friend has a laptop to be borrowed, or if friends share food, or other students do not look down on those with less money for clothes. Nonetheless, while the monetary basis of hardship can be alleviated relationally, it is not removed. Moreover, both intermediate and limited categories are not secure year on year. Our framework is set out as follows:

- **Acute hardship:** Has unmet basic needs; no secure income year on year; no money for fees, and family cannot help with expenses; no or poor accommodation; food insecurity; transport insecurity; and no reasonable access to computer and internet.
- **Intermediate hardship:** Basic needs are met but does not possess all resources to learn and live as a university student, and there is little disposable income. Year-by-year income may be more or less (in)secure if there is bursary commitment for the duration of the degree. Students with a bursary generally send money to family. There might be a very small amount of financial support from family (taking out a loan or the family trading-off their own needs to assist, for example, between parental health and education). Often fee debt accumulates. Accommodation is mostly adequate, some good; some food insecurity is experienced; variable amounts of money for transport to university for those who live at a distance from campus (sometimes the choice is between eating or travelling); there are

limited funds to return home if from a rural area or for internet to maintain contact. A laptop might be owned and there is, at least, intermittent access to a laptop, but such access is not guaranteed for all or for all years of study and is likely to be shared; and, if a laptop breaks, it might not get repaired.

- **Limited hardship:** Southall (2016: 175) refers to the ‘marginally’ middle class. One or more family members will have completed higher education and one parent is in a secure government job (teaching, police, government, etc.), is a white-collar employee (clerk, administrator, supervisor, etc.), or is a small-scale business owner and operator. There is sufficient disposable family income to contribute to the student’s basic needs and sometimes more. (However, these families may have suffered job losses due to Covid-19.) In addition, the student may have a private-sector bursary to cover basic needs, a computer and extras like clothing, toiletries, church-going activities, or leisure activities such as shopping or cinema. Yet, they might still struggle to pay fees if there is no bursary (and may not qualify for NSFAS as family income is too ‘high’), so debt may accumulate, especially if there is a course change or modules are failed. This category is highly precarious: there is no intergenerational transfer of resources, and potential for further upward mobility remains constrained.

Table 3.6 shows our assessment of how many students fell into which category each year we interviewed them.

Table 3.6: Hardship numbers in the Miratho life-history group

	2016	2017	2018	2020
Acute	12	5	2	0
Intermediate	48	55	49	41
Limited	6	6	9	17
Total	66	66	60	58

Brief commentary on the hardship numbers

Were a student to remain in the acute category, they might find it almost impossible to stay the course, which explains the decreasing number in that category in Table 3.3. All Miratho students eventually moved from acute to intermediate. By 2020, most students fell into the intermediate category, some were on the borderline; some had been unable to secure full-time, permanent employment, such as Buzwe (City) who at least had part-time work, or Neliswa (Rural) who was struggling to find any work at all; or some were stuck because of their fee debt, like Sonto (City) (see Chapter 8). They managed to escape the acute category largely because they were still able to live with their families and be materially supported by them with food and accommodation. Their situation, however, was precarious and they may yet slip into the acute category.

The numbers in the limited category increased, particularly in the last year. In 2020, many students in this category had completed their courses and most had no debt. They variously had funding for further study; were employed as teachers (one was a nursing graduate in a rural clinic); had paid internships or traineeships; were engaged in some entrepreneurial activity (some alongside ambitions for further study); or were still studying

but with a significant likelihood of employment. But precarity still featured strongly. For example, an internship could put a student in the limited category in 2018, but back in the intermediate category in 2020 when it ended and they became unemployed.

Poverty and well-being of university students

Students' material well-being must be of central concern in any policy dialogues about equity and university education. Although poverty is threaded through Chapters 5, 6, 7 and 8, we highlight it here for the impact it has as a conversion factor. So strongly did a lack of material well-being feature in student life-histories that we became convinced that failure to acknowledge and understand the effects of hardships risks severing the capability approach from poverty and debates about inequalities of economic power and economic systems, especially, in our case, for black students. We have, therefore, generated our matrix (Chapter 4) for evaluating student advantage and disadvantage in terms of what students can reasonably value as the outcomes of a university education, taking into account the material and related poverty hardships they endured. In this way, distributive challenges of fairness and justice are not obscured.

Post-2017, first-time university students from low-income households have had a fees-free university education, so it is yet to be seen how experiences of marginalisation and struggles play out under such circumstances. However, historical inequities still affect students. South Africa has not yet realised the higher education policy goal that equity of access must be complemented by equity of outcomes to avoid a 'revolving door' syndrome of high failure and dropout rates.

A lack of money brought multiple hardships to Miratho students, for example, insecurity about food and about a decent and safe place to live; anxiety about finding funds for basic toiletries and for clothes that do not signal poverty; inability to pay fees which, for some, resulted in having to discontinue studies or in not receiving academic transcripts at the end of the year or degree; and, not affording a computer or internet access, with repercussions on capacity for study. These hardships concern basic human needs, as well as the rights to be a respected and dignified person and to have the opportunities and freedoms to benefit from education. They represented severe and omnipresent threats to well-being and to the chance of succeeding at university. Hungry, cold and (with reason) chronically anxious students are unlikely to be able to apply themselves effectively to studying.

The life histories clearly reveal both the material basis for the effective opportunity to participate in higher education and how money barriers generate exclusions. We see a pattern of families expecting that the graduate will improve the situation of the whole family. However, in the household there needs to be at least some financial resource in place to convert into initial access. Akhona (Rural) told us that, 'I didn't see myself in the university ... they were telling us that there's no money to go there'. Maduvha (Country) said that, when she received her grade 12 results and saw that she had qualified for university, she was excited, 'but the problem arose when I told my parents ... My father told me "My daughter, I don't have the money". So, it was very bad for me because that was the day I thought everyone will be happy. It was very difficult for me to be happy again. I thought it was the end of my world'. Or Aluwani (Country) who told us: 'The day I registered, my father was sad, thinking, "How I will take you to varsity? I have to take care of the family, I have to take care of your mother, and so you will be needing the money for accommodation, the fees, and the money for food"'.

As Chapter 5 details, this income poverty intersects with information poverty and a lack of knowing how to apply for funding, making university access highly challenging, including for those with several grade 12 distinctions. Once at university, students struggle to pay for fees, food, accommodation, travel and learning materials. Thus, Nombuso (City) said she worried every day about how to pay her fees so that she could graduate, 'I wake up with it, I sleep with it', and Tintswalo (Country) explained that, in his first year, 'things turned to hell when I didn't get a bursary'.

Although we did not ask students directly how much money they had to live on each month, we could extrapolate from what they told us. We estimated that some in their first year existed under the lower poverty line.¹⁶ We regarded these students as suffering acute hardship. Even those doing slightly better – on or above the upper poverty line – faced food insecurity. Many parents or grandmothers are dependent on social grants and could not assist with food when the NSFAS grant was paid late. Khuzani (Provincial) explained that, 'I try to be strong as if nothing is wrong with me but then it kind of destroys me in a way'. Thapelo (Rural) explained that, 'I must eat to be able to go to classes'. Lungile (City) lived in an informal settlement and explained that, 'most of the time I usually have one meal. I can wake up and go to school [university] from eight until six without eating anything. I will eat when I get back to my house. But when I have extra per month I do get myself something at school, like a pie'. Others like Dumisani (City) traded-off money between transport each day and buying food. There is often pressure to use part of the bursary funds for family at home. For example, Lesedi (Rural) explained that, 'at home sometimes I arrive, there is no food, there's nothing ... They know that I have a bursary which funds me'.

Depending on their funds, students stayed in a variety of types of accommodation. If they could not afford a university residence room or did not have good enough grade 12 results to qualify for a place,¹⁷ they 'bought' a share in a room, sharing the single bed and tiny cooking space and coping with the lack of privacy or quiet study space. This arrangement was prevalent at both rural campuses. Other students lived off-campus in accommodations of varying quality and worried about paying the rent, while some were evicted. A few students stayed with their families and did not have sufficient space to study. For example, Maada (Country) shared a three-roomed house with her mother, brother and her sister's child. There was no space to study, so Maada used the ironing board as a makeshift desk. At the three urban universities, the further away from campus students were, the more expensive transportation was, offsetting the low cost of a cheap room in a township. Nelisiwe (City) left home at 4:30am to be at university by 6am to access the computer labs before they filled with students. In the cold winters, travel was especially hard, so that Lungile (City) and Anathi (Provincial) mentioned how they wished they could afford warm winter clothing.

Combining with the deprivation of basic needs, a lack of income generates social exclusions, which compromise human dignity. A student at a workshop in Gauteng in April 2017 gave an example of the painful exclusion and daily humiliation of not having enough:

16 As from 2019, the national poverty line in South Africa was: monthly lower poverty line ZAR 810 and upper ZAR 1 227 (Statista 2021).

17 Universities generally require a particular grade average for students to secure a place in an on-campus student residence. Those with lower grades do not get residence accommodation and must try their luck off campus.

The university forgets that to attend lectures you must first shower, eat, brush your teeth, etc. You need access to basic toiletries like deodorant, and women need to be able to buy sanitary towels. ... Those things are taken lightly [by the university] but they affect students who cannot come up and say these things.

Participation in classes is affected, 'where you won't ask questions in case other students make mocking gestures that you smell badly' (Miratho field notes, March 2017). We found repeated instances of such exclusions in our interview data. Take Anathi from rural Eastern Cape who told us that in her first year she could not afford to dress like other students:

I would feel so small ... I would just sit in the corner and be like no, what am I doing here? I am just fooling with myself. I don't belong here. It's not actually nice. Even though it was kind of difficult for me to ask for help, because I see people, I view them as they are different from me, they won't understand ... I still feel like that. Whenever we are going to class and I see these girls talking and laughing and they talk about something I know, I still find it difficult for me to talk because it's like they don't notice me. I don't know what I should improve ... for them to notice me.

In Anathi's case, she is unable to participate in the social activities judged constitutive of being a full participant in university life. Sakhile (Rural), who was training to be a teacher, described how in their teaching practice 'we have to look like teachers, we have to dress properly ... so that we can look like teachers, as we are supposed to'. Unlike school, when he first arrived at university it 'was very hard'. At school they wore a uniform, but at university:

things were very hard, very hard, sometimes I didn't go to the campus because I was afraid, I used to think, what am I going to wear and stuff, it was very hard, very hard. But then after I received my allowances, I managed to get myself some outfits, so that is how I felt confident.

We heard how the students constructed themselves as persevering in the face of adversity, some believing that poverty itself had 'taught' them to keep going. They produced an agentic narrative of self as persistent, determined, resilient, goal-driven, aspirational, and working hard to ensure success in forging 'brighter futures' and making their families and communities proud. For example, Tiyani (Metropolitan) explained, 'I might be wearing the same trousers that I was wearing yesterday and the day before yesterday but I know what I'm here for ... I'm here to get that degree, become a better individual, and change the situation back home'. Or Menzi (Provincial), who said, 'rather take your struggles and make it your shield and let that study protect you'. Akhona (Rural) told us, 'any challenge I can stand and overcome'. Khethiwe (City) explained that, 'I was a very determined student. I was, like, let me try and study my way out of this situation. I'm going to go to university next year, I'm sure of that. Even though I'm coming from a rural background, I know I'm going to make it.' Nyiko (City) said, 'I don't let things tear me down. If I'm down I pick myself up to do great'. This self-narrative suggests that the students mobilised the functionings they possessed already, hard work, perseverance, and so on, to pursue their aspirations.

However, tenacity alone cannot compensate for the uncertainties of material deprivations which intersect with other deprivations and combine to jeopardise successful navigation of a university education. Students' material well-being must be a dimension of concern in any policy dialogue about student learning so that students can participate fully in the core teaching and learning function of the university. Students who are cold or hungry or who miss classes because they cannot afford to get to university do not learn as well as they might. That some students show tremendous resilience in the face of hardship is no reason not to act.¹⁸ Table 3.7 shows the possible indicators for poverty at university as they emerged from our data; they could be measured during university and again several years later to assess the impact of higher education on student poverty.

Income or funding was, then, a key objective conversion factor and also a subjective factor for advantage defined as capabilities and functionings expansion.

Table 3.7: Draft intersectional indicators for student poverty

Dimension of need	Indicators
Accommodation	Does not have somewhere to live Accommodation is not conducive to studying Accommodation is not safe
Food	Is not well nourished (cannot afford to buy healthy food and a variety of foods) Cannot afford to show hospitality
Travel	Cannot afford to buy daily transport to and from campus Mode of travel is not reliable
Clothing and toiletries	Cannot afford clothes deemed appropriate for a student Is not able to afford basic toiletries (sanitary towels, deodorant, lotion, toothpaste)
Health	Is not able to access free healthcare services and medication needed, including spectacles
Fees	Does not have secure income for registration and tuition
Learning materials	Cannot buy basic textbooks Does not have access to a laptop or computer on and off campus, to printing facilities, and cannot afford sufficient data for internet access

18 In 2019 we conducted a survey featuring biographical, household, schooling and university experience questions to which 39 of the Miratho students responded. The results showed that 53.8% had NSFAS or other government grant. Only 15.4% said they never worried about paying their university fees. A total of 43.6% came from households with an income of less than ZAR 3 000 a month, 43.2% said they assisted their families financially, while child grants and old-age pensions constituted the majority of household incomes. A total of 54.1% said they could not pay for transport to university; 37.8% said they worried about paying for food; 64.1% said they did not have peace of mind about paying for their accommodation; 35.9% said they did not have enough money for suitable clothing; and only 12.8% said they had the average resource requirements to participate equally at university. Lastly, 39.5% said they felt overwhelmed by fear and anxiety regarding their academic progress and life at university.

Subjective conversion factors emerging from life-history interviews

After identifying general conversion factors, including the role of income, we produced a bottom-up table for each student in the study based on the four years of our life-history data. These tables are specific to these students and the five universities and they emerged and operate against the wider backdrop of historical and social factors. Together with the macro district, provincial and national in/equality themes, these more fine-grained factors show how capabilities may be expanded or constrained in specific contexts for specific students.

We produced three conversion tables for each student: for access to, participation in, and moving on from university (for the example of one student see Appendix A and also the five narratives in Chapter 8). The three tables capture bottom-up, narrative-data-driven intersecting conversion factors. We also cut across each conversion factor using Unterhalter et al.'s (2020) three categories of inequalities: horizontal inequalities pertaining to culture and forms of belonging; vertical inequalities associated with distribution of resources (especially, in our case, income); and process inequalities which are linked to learning and teaching and could be broadened to encompass extra-curricular opportunities.

In our example, Ntando had studied for a BCom Accounting degree beginning in 2016 at Provincial University. He came from an Eastern Cape village and had attended a quintile 1, fee-free public school (vertical inequality). An older cousin-sister¹⁹ was at the same university. From secondary school he lived with and was supported financially by his state pensioner grandmother (vertical inequality). In grade 12 he began to think about going to university and was assisted with applying and initial funding by an NGO. From his second year he had NSFAS. He worked hard, lived in a shared student house, and attended church regularly. He graduated in 2019 and enrolled in a postgraduate diploma in accounting also at Provincial. By 2020 he was working and living in Cape Town. As he explained, his background had presented him with challenges with regard to fitting in and belonging (horizontal inequality):

Certain people I don't interact well with because of, I think, our backgrounds. If I can interact with people from families that can afford things and who are willingly interactive, I think that's the only thing that's left, for me to get in ... I remember, we had a group assignment, I just choose a group, I noticed that these guys chose themselves because they fit to each other. I was quite an outsider to the group, to the manner that we couldn't talk, laugh together.

But Ntando became more confident during university and more independent. With regard to teaching and learning, in his experience, the university 'treats every student just the same, regardless of where you come from' (process equality).

Ntando's three tables show that conversion factors are complex. The bottom-up tables relate to the macro-structural objective factors outlined earlier which work themselves out dynamically with variation in individual lives and across inequality categories. Conversion factors are colonial, historical, social, personal and environ-

19 It is common for students to refer to extended family members who are close in age as brother or sister.

mental, and underpinned by power relations (with teachers, at the university, with different peers, in the family, and so on). In some ways our approach aligns with environmental impact theorists of university success who emphasise the interaction of four foundational influences (what we would call conversion factors) on students' educational experiences and achievements as explained by Schreiber et al. (2020): (1) personal-cognitive resources of students; (2) institutional teaching–learning inputs and practices; (3) family–societal influences; and (4) macro-infrastructure factors in which the university is embedded (and here we include basic needs at university and at home and the material and non-material impacts of low income on student subjectivities). All of these are addressed in Chapters 5, 6, 7 and 8.

Conclusion

We can make a few general points about conversion factors as drivers of equality or inequality for higher education access, participation, and learning outcomes. Broader structures of advantage and disadvantage arising from apartheid and colonialism of gender, race, class (income) and geography are revealed by national and district and higher education statistics and by life-history interviews. General factors play out and are realised as specific conversion factors that shape an individual student's life: income, biography (including family education history), schooling and grade 12 results, information about university and degree programmes, teaching and learning at university, university culture and ethos, relationships, and so on, as set out in Ntando's three tables (Appendix A).

We have emphasised that a student poverty approach to pursuing equity in university education should make evaluations that consider the intersections of *both* material well-being and economic justice *and* educational capabilities deprivation or expansion. Both have explanatory power and normative purchase for eliminating severe income inequalities, even though wealth-based poverty will not resolve all questions of social justice and equality. Nor is this inconsistent with Sen's (1987: 3) concern with the effect of 'depleted wallets' on well-being.

In different ways multiple conversion factors and different kinds of inequality have an impact on and shape learning outcomes in complex ways so that a learning outcome cannot be narrow or only cognitive as if each student is otherwise a blank, asocial slate. Addressing unequal external circumstances is crucial in expanding capabilities and in understanding capabilities and functionings as more than only an individual power and achievement (DeJaeghere 2020). Equality requires a positive alignment of external conditions of possibility with student agency and their efforts to mediate enabling or disabling circumstances. It is clear how crucial relational connections were to the students: actions by family, schools, teachers and lecturers, friends and NGOs consistently opened possibilities. What each person can do is relationally mediated by the person and the structures in which they find themselves and such relational connections should be a key focus and captured in any set of valuable capabilities. Student freedom 'is inherently a form of interdependence with others' (Hoffman & Metz 2017: 153), so we strongly challenge any excessively individualistic notion of capabilities because they emerge in relational and structural contexts. If we are to

understand what changes are needed in higher education, what perpetuates inequalities and how we might disrupt them, then we must map out how conversion factors work out in each person's life and how they mobilise their agency.

Furthermore, rich life-history data direct us to look not only at a single conversion factor, such as schooling, but at how this intersects with family, income, community and university efforts to reach schools. We can see in the case-study chapters how conversion factors work intersectionally to produce or constrain opportunities and outcomes and how these are connected. A low-quality school on its own impedes access. But where it intersects with a significant other (teacher, friend) who has experienced higher education or a supportive family, and especially with the personal conversion factor of determination in a context where getting out of poverty requires getting into university, the overall impact can be the functioning of access. In other words, the intersectionality of conversion factors, in a context where social mobility and achieving higher education are connected both statistically and in what families perceive instrumentally to produce specific effects, can advance capabilities and agency, albeit under uneven conditions.

At the same time, we must keep in mind that, despite agential reflexive efforts on the part of students from low-income households to define their university trajectory, they face hurdles generated by the structural order. A capabilitarian theorising takes account of how opportunities are shaped by macro-social structures and also how reflexive agents interact with these structures, thus giving content to the 'empty' conversion space. In different ways, each of the students is a social agent, despite differential conditions of possibility. What each student succeeds in being and doing in comparison with others reveals agency as well as options and inequalities and the need for transformative change towards more justice, all of which capabilitarian theorising encompasses. We explore all of this in the case-study chapters that follow.

CHAPTER 4

The Miratho Capabilitarian Matrix

Evaluating individual achievements and institutional arrangements

In Chapter 2 we explained how our definition of the university as a transformative space is grounded in human development and the capability approach, with capabilities and functionings as the relevant metric. Our concern is with actual learning rather than proxies of input and output measures because higher education is complex and numbers alone cannot offer satisfactory assessments of quality and equality in its vertical, horizontal and process dimensions (see Chapter 3). We also noted that outcomes in higher education should go further than students' intellectual development. Therefore, this chapter makes the case for a principled higher education capability set, foregrounding student well-being and agency and the arrangements which enhance or impede the expansion of capabilities and the realisation of transformatory functionings.

An effective capability set and realisable functionings require enabling university (and social) conditions to achieve the core educational purposes of higher education, namely 'to bring students into a transformational relationship with knowledge that changes their sense of who they are and what they can do in the world' (Ashwin 2020: 3), to cultivate citizenship and public values, and to enable work and careers. While all the capability domains we introduced in Chapter 1 intersect and support each other, the epistemic contribution domain is architectonic in the higher education space. Yet, as we shall see, for the Miratho students, developing epistemic contribution depends on opportunities in the other seven domains.

The chapter sets out the process of developing the Miratho Matrix through three steps: (1) a normative-empirical method to select capabilities; (2) justification for a selection of eight capability domains and corresponding key functionings; and (3) the generation of a higher education matrix.

Step one: A principled method

Evaluating improved well-being and agency requires an approach that connects opportunities with justice-facing outcomes. Gasper (2009: 30) reminds us that we must:

Address well-being not only by measurement but also, and sometimes instead, by

for example rich qualitative description ... We need in addition, cases of particular real people in their complexity, in their social and historical contexts. Testimony, 'voices of the poor', life histories and their languages of feelings are indispensable complements to economists' abstraction.

We thus take rich life histories as our evidential warrant, and effective capabilities and functionings as our focal concepts. Moreover, even though the capability approach emphasises what people can be and do rather than their material possessions, in our context having adequate financial resources is crucial in relation to achieving functionings, as we made clear in Chapter 3.

Selecting relevant well-being dimensions is not a technical exercise but entails making value judgements regarding the capabilities which are of value to stakeholders. We thus adopted a synthesising and holistic approach (Byskov 2018) which combines normative assumptions or foundational insights with procedural methods from an empirical-deliberative process. For normative insights, we drew on capability theory and extended it when we found gaps which did not address our specific concerns or when we wanted to add a critical perspective. Empirically, we drew on stakeholder data and a deliberative process to judge which capabilities mattered most. We think in-depth life-history data, the participatory research project, workshops with students, and meetings with other stakeholders meet the criteria of a deliberative and participatory exercise. Moreover, our selection process was iterative, arriving at eight domains as we collected and analysed further waves of life-history data.

Byskov (2018: 225) helpfully sums up the synthesising method we adopted, namely 'an ongoing process that may provide a non-ideal list of capabilities and functionings, which is under continued scrutiny and revision'. When adding a capability to our set we did not expect that all students would value it or value it equally. The fact that any student valued a certain capability justified its inclusion because we wanted to guard against what Byskov (2018) argues are adaptive preferences on the part of students. At the same time, we defend the subjectivity of the life-history students' experiences as persons who 'are in general aware of their own values and the extent to which they are satisfied' (Byskov 2018: 215). Thus, all the capabilities in our set, even if not named by students in the way we do, are extrapolated from the life-history data as the case-study chapters (5, 6, 7, 8) show and as we further elaborate in this chapter with indicative data extracts.

Step two: Identifying capability domains and key functionings

Starting with three broad domains – epistemic, social and material – we employed a dialectic of normative iterative theorising and empirical data analysis to draft our capability set. By August 2019 we had agreed upon six domains. After August 2019, we expanded the six to eight domains based on further rounds of analysis and life-history data; none of the capabilities are trivial. After much debate, we categorised the material domain as a conversion factor rather than a capability, for the reasons elaborated in Chapter 3. We mapped NVivo codes against the eight domains as a further check. We

also analysed the synopses of the 58 students who were interviewed four times; all eight domains are evident across all the synopses, albeit with some variation in how perceptible they were. As explained in Chapter 2, we understand the corresponding functionings as a core set of what we consider ‘comprehensive’ learning outcomes (both cognitive and non-cognitive) which also encompass process and are complex and demanding; they should not be reduced to a checklist.

In generating the capability domains, we were led by both the theoretical frame and the data. Whichever approach we adopted, all the domains are present in the data indicating what students valued. Three examples follow. First, we included in our set narrative capability (the opportunity to tell one’s own higher education story) early on because we thought it was theoretically important. Data that arose from the participatory photovoice project confirmed our choice. Second it gradually became clear to us that an ubuntu capability – a relational and communal process of becoming a moral human being showing sympathy for, solidarity, sharing with and generosity to others (Mkhize 2008) – suffused how students approached their relationships with others and others with them. Third, although there are strong normative grounds for including the capability for practical reason (planning one’s own good life) in any set, it emerged as important in the coded data because it guided the choice of functionings in what Austin (2018: 29) describes as an ‘activation’ process for choosing and exercising a functioning (e.g. to be an epistemic contributor, or to show care towards another).

The domains (presented in Table 4.1) we settled on are ‘thoughtfully perfectionist’ (Gasper 2009: 294) – we take a position on what is educationally valuable and we combine theorising, empirical data and situational analysis of higher education. In so doing, we seek to apprehend the voices of less advantaged students alongside the theoretical voice of what is educational about higher education and how inequalities work against greater justice. As DeJaeghere (2020: 18) points out, ‘meta-theoretical commitments to justice are important for scholars using the CA in education’; our synthesising process is not then completely open. We are confident that these opportunities and outcomes amount to high-quality higher education which expands capabilities for living well. Moreover, they offer a way of conceptualising the benefits of university education that refers to both processes and rich outcomes. In our view, only by considering both capabilities and functionings, can universities evaluate the quality of provision, and who is benefitting. They should ask: What did students actually choose from the capability set and how did they choose, and under what enabling university and personal conditions?

We recognise that the capability set does not lend itself to easy measurement, but, for reasons set out in Chapter 2, it should not be discarded for this reason alone. In addition, while every domain is individually realised they are all fundamentally social and relational. None can be developed in the absence of positive relationships with others – lecturers, peers, friends, significant others, community and family. As DeJaeghere (2020: 19) argues, capabilities are ‘constituted by and enacted through social structures and relations which expand or put a break on agency’ (see Chapters 2 and 3).

Table 4.1: Capability domains and functionings

Domain	Capabilities	Key functioning (learning outcome)
Epistemic contribution	Equality in gaining degree knowledge, being able to reason, understand, apply, share, discuss and examine knowledge critically alone and with others; having a transformational relationship with university undergraduate knowledge; access to technology for learning; voice (academic, political, social).	Being an epistemic contributor
Ubuntu	Equality in understanding that a person's well-being is connected to the well-being of other people; intrinsically valuing relationships.	Connected to and concerned for the well-being of others
Practical reason	Equality in deliberating about, reflecting on and forming a view of what it would be best to do in specific situations and for a good life. Deliberating about ends and valuing a certain kind of life, being a certain kind of person. Planning purposively towards this; in aspiring, independence, and confidence in making life decisions.	Planning a (good) life
Navigation	Equality in the ability and confidence to manoeuvre into (access) and through university and to adapt to succeed academically; resilience; support from others; motivation to succeed; fortitude.	Navigating university/ society's culture and systems
Narrative	Equality in telling one's own higher education story with confidence.	Telling one's own higher education story
Emotional balance	Equality in developing and achieving emotional balance (able to deal with challenges and stress, able to be happy) in higher education experiences and learning.	Able to deal with academic and life challenges
Inclusion and participation	Equality in being respected, recognised and participating fully in teaching and learning, the wider university, and their community; having good relationships/friendships.	Being a respected and participating member of the university/ society
Future work/ study	Equality in preparation to find a graduate-level job in the public or private sector, self-employment or further study.	Employable/qualified for further study

In 2019 we tried out the six capabilities we had agreed on at the time (these excluded emotional balance and navigation) in both the pilot survey with Miratho students and the university survey with final-year students at Provincial. All capabilities emerged as valued by some or most of these students (Table 4.2).

Table 4.2: Valued capabilities from the survey

Capability	Miratho % [N=39]	Provincial University % [N=724]
Knowledge and learning [epistemic contribution]	89.7	84.0
Ubuntu	92.3	77.0
Planning my life [practical reason]	89.5	81.4
Telling my story [narrative]	69.2	35.5
Inclusion	66.7	45.7
Being well prepared for work	74.4	73.8

We see greater variation between the two groups for inclusion, ubuntu, and narrative. We can speculate that, because all the Miratho students were low income and black, they experienced exclusions at university, they valued ubuntu ontologically, and they had experience of telling their stories through the life-history interviews or photovoice. By way of contrast, the Provincial group had greater variation in backgrounds and experiences. Nonetheless, both groups valued these capabilities, even considering the variation. This is not to say that there might not be other capabilities they valued as much, or more; hence the revisable nature of our set.

Our capability set and key functionings are then an evaluation tool and metric of justice (measuring equality of what?), based on the principle of equality in higher education, encompassing: access to university; participation in teaching and learning; inclusion in the wider life of the university; qualifying with a diploma or degree; and moving on to work or further study. This framework is intended to provoke discussion in universities about inequalities across different groups of students in connecting capability (opportunities) and functionings (outcomes) in the different capability domains, and what to do about this. The domains are multi-dimensional, all count and reinforce each other, and in tandem are the key functionings which intersect and support each other. ‘Cherry picking’ capabilities should be avoided because it is the whole set that supports students in benefitting from their university education.

Epistemic contribution domain

Epistemic contribution emerged as architectonic for transformative higher education (see Chapter 6). Participation in higher education includes acquisition of subject and professional knowledge and understanding as basic to what higher education is and does. Miranda Fricker (2015: 83) extrapolates from epistemic justice a core human capability of ‘epistemic contribution capability’, that is, the right to be a knower and teller in society. The capability captures knowledge (subject and professional) and skills development, and being able to participate fully in acquiring, sharing and co-producing knowledge materials. It further includes having a political voice. The capability involves ‘being able to contribute epistemic materials to the shared common resource’, ‘to use our reason in order to discern the everyday facts and social meanings that condition, constrain, and make sense of our shared lives’ (Fricker 2015: 83). Our epistemic lives

involve being, doing, and acting with others (Barker et al. 2018). It is clear too that access to technology (highly valued by students) is a significant element in whether one can become and be an epistemic contributor.

In contemporary times, the epistemic contribution capability is central to a critical and decolonial approach, to an ecology (plurality) of legitimate knowledges, and to engaged and inclusive pedagogies. Exclusion from or having only a thin capability has real consequences. Thus, anticipating many of the current debates on epistemic justice, the late South African activist and philosopher, Steve Biko (1978: 49), wrote of apartheid that 'the most potent weapon in the hands of the oppressor is the mind of the oppressed'. Our ideas and knowledge influence the possibilities for participation in inclusive meaning making in politics, education, the professions, and so on. Who has access to epistemic goods at various layers of education is then a matter of justice. Biko points compellingly to why the epistemic matters: those who hold political and social power, whether in the broader society or in higher education institutions (or both), also wield epistemic power. Thus, epistemic power holds higher education oppressions in place.

Yet, low-income, especially rural, students such as those in our study are judged as inarticulate or less intelligent because they do not come from schools where they have experienced pedagogies which require them to stand in front of others, to discuss in groups and talk, or to use English fluently. They are subjected to what Fricker (2007) calls 'testimonial injustice', that is, they are not recognised as credible knowers and speakers due to prejudice on the hearer's part. For example, Nyikiwa (City) said that, as a rural student, she was not confident about speaking out in class and did not ask questions, an experience echoed by nearly all the Miratho students (see Chapter 6). The capability for epistemic contribution seeks to dismantle such injustices and to recognise all students as knowers and tellers, giving and receiving a range of information and opinions, which requires epistemically-enabling situations and access to technology.

Initially epistemic contribution was thin in the life-history data: students felt excluded by language, a lack of access to technology and transmission pedagogies. As the courses progressed, accounts of gaining and valuing disciplinary and field of study knowledge thickened for some students. For example, some told us how they were respected in their home communities for having acquired knowledge at university. That all the students were learning in English, which was not their home language, was an epistemic challenge especially when they first came to university but, in time, students accommodated it (although the universities did not really assist). Early on, Dumisani (City) explained that he loved his language practice course because of the 'friendly discussion', crucially underpinned by epistemic-advancing relationships: '[T]hey make everything seem so easy, they're approachable, you can raise your concerns any time, we're basically like a family'. Rimisa (Country) spoke enthusiastically of what he was both gaining and contributing in his classes on indigenous knowledge systems – doing his own research and producing 'quality knowledge'.

Over time most shifted from valuing 'being given information so that we pass' (Tintswalo, Country) to wanting classes which were more challenging and interactive. Although the emphasis was still on what the lecturer knows, the importance of being a knower and teller began to emerge. Thendo (Country) understood the need for student engagement as part of the process of decolonising education. Bonani (Provincial), who was studying agriculture and education, said he 'felt like a farmer', having to come up

with solutions to real challenges: he was critical of those who see farming as ‘a slave thing’ and was adamant about the need to reclaim agriculture.

Positive experiences of collaborating fostered this capability for the students. Bongeka (Provincial) said role play in criminology ‘cracked the shell’ of her non-participation. She started paying attention to the views of others so that now she became ‘more involved in everything that’s happening around the world ... to see things not just as black and white’. Langutani (Provincial) told us that in microbiology students were asked to contribute knowledge as well as acquire it, making her more questioning. She said of one lecturer that ‘he is getting something from us as much as we are getting something from him’. Others valued the knowledge they were gaining for what it would enable them to do for others in the future. For instance, Malusi (Provincial) felt that his knowledge of law would enable ‘everybody having a chance in life’. Zanele (Provincial) had contributed to a university booklet aimed at decolonising the curriculum by making students’ narratives available. He had written about ‘the initiation of Xhosa boys, love and other personal things’.

Often the capability emerged from what students would have liked from their university education but did not get or did not get most of the time. At Metro the students found their degrees challenging and, while questioning was encouraged, some of the lecturers ‘don’t listen to what people are saying’ (Khuselwa). The obstacles to being an epistemic contributor included poor-quality teaching, unapproachable lecturers, lecturers who do not much care about students, and lectures that were dull or provided unclear explanations. As Tiyani (Metro) explained, ‘you go there wasting your whole day attending lectures only to find you didn’t grasp anything’. Further obstacles, which might be considered as contributing to calls for decolonising the epistemic and pedagogic (Moala et al. 2021) comprised the alienating large classes, struggles with English, struggles with access to laptops and the internet, fear of participation in classes, and a lack of confidence in themselves as learners or a lack of interest in the degree for which they enrolled (see Chapter 6). Pedagogy was also quite different from school where teachers ‘teach you what they need to teach you and then you do what they taught you, directly that. And then they bring into the exam what they taught you, exactly that’ (Ndoda, Metro). Only a few direct or implicit mentions were made of decolonising curriculum and pedagogy.

Of course, this domain is not fostered only in formal learning and can be advanced in out-of-class interactions (as Chapter 6 shows), but the formal learning space is central to what universities do. As Sakhile (Rural) put it, ‘knowledge is power, so if you have enough knowledge ... you can prosper’. With regard to informal learning, political voice – which we think is integral to the capability – was fostered through the #FeesMustFall protests of 2016 and 2017 (Chapter 6) even though only a few students were active. In contrast, a few were not supportive of fees-free education, arguing that students would then take their education for granted and not work hard, while some worried about the disruption to their studies. Nonetheless, most valued the protests as giving them a voice for their frustrations with NSFAS, especially the late payment of grants which created hardship for them.

Ubuntu domain

Unlike epistemic contribution, which was undeveloped because of schooling conversion factors when students came to university, ubuntu was already a functioning (Chapter 5).

So the issue was the freedom and opportunity to engage in ubuntu with new groups. This community asset should be valued by the university and learned from students by staff and by researchers such as ourselves. Ubuntu is a Nguni word that encapsulates virtuous humanness – *Umntu ngumuntu ngabantu* which translates to ‘I am because we are’ or ‘a person is a person through other people’ (Shutte 1993: 46), or ‘each individual’s humanity is ideally expressed in relationship with others and, in turn, individuality is truly expressed’ (Battle 1996: 99).

Ubuntu has been described variously as ‘an age-old and traditional African world-view, a set of values or a philosophy of life which plays a strong and defining role in influencing social conduct’ (Himonga et al. 2013: 367–377). It implies that each person exists because others do, and that interaction between people necessarily involves mutuality and cooperation, to the extent that others’ lives and well-being are inextricably linked to the person’s own life and well-being (Migheli 2017). That is, it entails necessarily reciprocal interactions between individuals, which render us human (Tutu 1999). As such, ubuntu provides a ‘unifying vision of community built upon compassionate, respectful, interdependent relationships’ (Schwartz 2009: 24) and serves as a rule of conduct, a social ethic, the moral and spiritual foundation for African societies (Molefe 2016). Thus, ‘to be is necessarily to be in relation to others’, to be both free and dependent on others (Mudimbe 1988: 1), and ‘to prize communal relationships with others’ (Hoffman & Metz 2017: 157).

Importantly, the humanness referred to in ubuntu finds expression in a communal context (while not eschewing the individual; see Molefe 2017) rather than the individualism dominant in many Western societies (Le Grange 2012; Venter 2004) or institutions, like universities in South Africa, which are characterised by Western and neoliberal values. Relationships are ethically valuable (Hoffman & Metz 2017). In this sense, our deepest moral obligation is to become more fully human, which necessitates entering more sincerely into community with others (Metz & Gaie 2010), not exploiting, deceiving or acting in unjust ways (Le Grange 2012). The proper way to relate to others, based on ubuntu, is to seek out community or to live in harmony with others (Metz & Gaie 2010). This domain points to a solidaristic, collective cosmovision different from that of the neoliberal West-centric university and, hence, foundational to a decolonial approach to developing a capability set.

Le Grange (2012) argues that many challenges facing South Africa have arisen because ubuntu values have become eroded through decades of apartheid-capitalism and centuries of colonialism. The legacies of apartheid and colonialism live on in institutions like universities in the Western values, ideals and cosmovisions that typically underlie and inform how people relate to each other. So, South African universities reflect value hierarchies that have pushed African and indigenous worldviews to the margins (Calitz 2018a). For example, Langutani (Provincial) experienced classroom debates about challenging topics in genetics as uncomfortable: it felt as if ‘you were fighting your own classmates’. The university pushes against collective values and students need to figure out how to deal with the individualism that the university encourages in light of their own valuing of ubuntu. The university also needs to consider its own ethos, values and learning arrangements so that obstacles to ubuntu are identified and removed.

As noted above, ubuntu is central to the transformative and decolonial university project and valued by students. It emerged in the widespread concerns to improve the lives of the students’ families and communities and to give back. Indeed, not a single

student did not aspire to use their university education to this end. Students wanted to be an inspiration and example to others; to help others like them to access higher education; to advance rural development; and to share with others and be hospitable. Thendo (Country) told us 'black people, we know ubuntu. You are here to assist others because you were also assisted'. Rito (Metro) affirmed the importance of sharing information 'that might transform' the lives of others. Buzwe (City) explained how others had 'made me who I am today'. The philosophy was encapsulated in respect for and responsibility towards others, in the importance of the extended family, loyalty and sharing what you have (food, books, money, laptop) with others. Typically, Rimisa (Country) explained:

In African cultures, they used to share their things, their knowledge. It was not individualistic. Everything was done communally. Archbishop Desmond Tutu said 'you are what you are because of other people', so that's what I'm going to do. I am going to help the community.

Sabelo (Rural) said that people help you when you have nothing, so when you have something you must help others. Students 'pick each other up' during their struggles so that helping each other helps achieve their well-being and agency goals. Rito (Metro) compared ubuntu values to how individualistic people are in cities:

Everyone is just minding their own business ... you might find a person stays for five years without even knowing who their neighbour is. So the connection we have in rural communities allows us to be interdependent, compared to when you are this [city] side, [you need other people] to unlock your potential.

Bonani (Provincial) put it this way: 'When you isolate yourself you die slowly'. Or as another student said on the Miratho survey: 'You don't have to act like you know it all, university is a big hole, if you don't watch out it will swallow you, you need other people to survive socially and academically'. Moreover, success is not just an individual getting her degree, as Bongeka (Provincial) put it: 'If you do not plan on helping other people in some way or another, you're not yet successful'. Menzi (Provincial) stressed that 'I'm not only studying for myself, I'm studying for the community, I'm studying for the country. I have to help the country to be in a better place'. Finally, consider Rito's (Metro) ubuntu-based reflections on lifting others as you rise:

We do not have the funds to take him [a neighbour] to school but I know that one way or the other he is someone that I'm going to help and contribute towards success, because it doesn't do us any good to see our fellow brothers and sisters roaming around in the streets. How do we look at them tomorrow when you have succeeded? Do you look at him as your gardener? Do you look at her as your domestic worker? How do you get to see that person? Then it means that we have to do something as a young generation to keep each other up – as you go up you have to be pulling another up, who is going to pull another one. ... If I can help just one person and they help at least two, just imagine how many people that we can reach out to.

For students who are black and from low-income backgrounds, the capability of ubuntu is essential because, when they have experienced obstacles and adversities during their

higher education journeys, someone has been there to help them succeed and they have helped others in turn. Thus, their lived experiences entail a moral responsibility towards others, making it a way of living that cannot be otherwise, a way of seeing themselves in the world and understanding their relationships and connections with the well-being of others.

Practical reason domain

Practical reason is the human use of reason in the service of living the life one wants to live and being the person one wants to be. Practical reason mediates between objective capability, effective capability, and achieved functionings as an activation factor. For Austin (2016) practical reason is a filter determining which objective opportunities are visible to and effective for a person. While, from a philosophical perspective, deliberative self-determination is a general human capacity, a pattern of constraints and enablements shape the life envisaged and lived by the individual (Austin 2018; DeJaeghere 2020) and is related to the formation of values. Austin (2016) links personal values and practical reason because values are commitments to living a certain kind of life and being a certain type of person. What a student thinks really matters in life is shaped by what they imagine is possible for themselves or how broad or narrow their horizons, which, in turn, shapes their conceptions of a good life, what they aspire to and what goals they set. University education can broaden imaginations and aspirations for planning one's life, together with developing goals and being disciplined in working towards them, as many Miratho students told us. Thus, imagining futures, aspiring towards futures, and planning for one's own good life intersect as part of this domain. As Rito (Metro) said, 'university is a place of possibilities'.

Miratho students spoke about how they became more independent at university, especially those who had come to universities in towns or cities. They had had to make decisions and plans and manage their finances, and now saw themselves as capable people. Rimisa (Country) believed he could now shape his own future, because he saw what he wanted and how to get there, while Khethiwe (City) 'strategises ... I already have a plan for next year ... I plan ahead'. Like Sabelo (Rural), the students learned more about who they are and encountered people different from themselves. And their studies contributed to forming their hopes for the future. As Bongeka (Provincial) explained, 'my studies are drawing me closer into being what I want to be'. They have plans and goals – to be teachers, accountants, farmers, engineers, social workers, entrepreneurs, to study further, to build a house for their family (nearly all speak of wanting to do this), to marry and have families and so on, in some cases more reasoned and thought-out futures than others. But all of them value being able to plan a better future and to mobilise their university education towards this goal. Some found that the degree they were enrolled for was not right for them and then either made peace with this by planning for the shorter term (Aphiwe, Provincial) or considered doing something completely different (Nelisiwe, City). Options for planning lives were broadened by their time at university, as Olwethu (Rural) explained:

Coming from a rural high school just going [to Rural], you just want to study something, get a degree, get a job, but going on studying, years passing by and then that opened my mind that, 'Oh you do not just have to graduate and go seek a job. You can continue studying'. And so university has changed the way I see life, a lot.

Ubuntu intersected with future-directed aspirations on the part of students to do something for their own communities, ‘something that will make a difference in the lives of vulnerable people’ (Maki, Metro). Mashudu (Metro, see Chapter 8) exemplified someone who had a clear plan for her future and how to get there. She explained that in university ‘you discover yourself as an adult and figure out what kind of person you really are’. She valued varied experiences because they did not allow her to ‘stagnate ... I feel like if I just stay in one place for too long I’m going to get comfortable. I’m not going to grow in any way’. She realised that being happy and fulfilled in her professional life is more important to her than being wealthy: ‘Are you really happy with where you are in life and with what you’re doing? ... You need to love what you do every day because, as much as you get a pay cheque for ZAR 90 000 a month, if deep down you’re dying inside, it’s not worth it.’

DeJaeghere (2020: 19) claims that ‘imagining alternative futures’ involves identifying the social structures and relations that put up barriers to those alternative futures. It follows that the informed basis of practical reason includes recognising and thinking critically about how structures and social relations affect one’s conception of a valuable life and one’s freedom to plan for and achieve it. Without such an understanding, possibilities remain faint or even invisible. Miratho students understood the socio-economic challenges they faced, but most placed more emphasis on their own agency than changing structures, developing an analysis of the difficulties that foregrounded the need to adapt to university life and society. Similarly, as told to us, awareness of gender inequalities in the university was vague, while racism surfaced infrequently in the interviews and then only at the urban universities.

Navigation domain

In our discussions with students we were constantly struck by the resilience, determination, perseverance, endurance, and adaptability they demanded of themselves to make it into and through higher education as it is, and to navigate the institutional and academic cultures and systems of universities that have not been created with low-income and/or black students in mind. The navigation domain is derived both from our data and from Yosso’s (2005) work on community cultural wealth in the US in which ‘navigational capital’ is a form of cultural capital that black students bring to college. This, according to Yosso (2005: 80), ‘refers to skills of manoeuvring through social institutions’ with unsupportive or hostile environments. By acknowledging that black students have multiple forms of cultural wealth, Yosso’s research deviates from the deficit approach through which communities ‘that often do not have access to white, middle or upper class resources’ (Yosso 2005: 82) are often judged. Because of their backgrounds, students such as the Miratho Project students are regarded as lacking the required capital to access and successfully navigate the university environment and are then positioned in deficit terms. Blame falls on students rather than on the unequal social and educational arrangements which constrain their capabilities. Thus, navigational capital can be a conversion factor, but in our view, it is also a capability domain.

As a capability domain, navigation does not on its own enable student success and high achievement. But it is highly valued by students because, without it, they would not make it into, through and out of university. Navigation capability involves students’ developing and mobilising their skills to locate resources, information, and people to help them succeed (Liou et al. 2009). These information networks are in the experiences

and relationships students draw on to understand and navigate their environment in order to succeed.

This domain acknowledges individual agency and resilience as 'a set of inner resources, social competencies and cultural strategies' enabling students to survive and flourish (Stanton-Salazar & Spina 2000: 229). If university conditions were also adjusted, mobilising navigation capabilities could enable black and/or low-income students to participate on an equal level with white and/or middle-class university students with more financial security and familiarity with the system.

Around half the Miratho students have an extended family member who had at least started at university. This relationship helped some in navigating access (Chapter 5) but was less helpful in navigating participation. Instead, as Dumisani (City) put it, most had to 'start a legacy from zero'. Miratho students negotiated and 'hustled' their way through funding schemes and regulations; coped when bursaries were paid late and they had no money for food; adapted to academic expectations and pedagogic practices for which they were not well prepared; figured out university systems; worked out both how to access technology and how to use it; dealt with English language barriers; and responded to the greater diversity of students than they were used to from school and home, including those much wealthier than them. None of this was easy, and the first year was especially challenging. On Menzi's (Provincial) first day he was scared because he didn't know his way around and did not ask in case other students thought he was typical of someone from a village. He didn't go to class because it was 'too huge'. On the second day things were a bit better, but he was still nervous and arrived late everywhere. The lecturers' English was too fast for him to understand and take notes and he felt he was 'the least clever student'. He did not think he would make it and considered moving to a rural university with more students like him. 'Everything is just completely different', said Aphiwe (Provincial). It is 'unsettling ... way difficult', remarked Busisiwe (Provincial). Khethiwe (City) mentioned it was five months before he felt that 'I've got this' with regard to computers and English-speaking lecturers. Khuselwa (Metro) recalled that, 'doing the first month of varsity it was tough, very tough, this one day I phoned my mother and told her that I want to come home'. Many struggle with the administrative services so that Sabelo (Rural) compared Rural to the Department of Home Affairs: 'Staff members, they only think about themselves. When its lunch it's lunch. When it's time to come back from lunch they are dragging their feet. So they are lazy. That's what I would say ... Rural University [has] bad administration'.

However, students could not afford to give up. Dumisani (City) explained: 'I learned from university that nothing is easy, but there is always a solution.' University has 'shaped' him and he knows he is accountable for his own success. But he also thinks the university should have made it easier for people, 'it should emancipate people, not confuse them'. Kamohelo (Provincial) says his second year made him 'strong because after that year I felt I could handle everything else that has to do with varsity. I told myself if I made it out of that year then nothing can stop me'.

While the determination of students is admirable, it shifts the responsibility for success onto them as individuals. As Menzi (Provincial) explained, 'you can only excel depending on the adaptation'. Ndiyafhi (Metro) put it this way:

Metro will show you flames, but it's up to you how you deal with those flames, it's either you adapt and make it your new normal, or jump off the edge ... you must be

a person who has the heart to go through that, go through the environment because it's rough there.

Students had to learn to seek help without shame. Sifiso (Provincial) observed, 'if you ask more, you will pass ... it's a path against stress and adversity'. While Tiyani (Metro) thought it was not right that students must do all the adapting, 'there is no option if you want to survive. You must get used to the system'. Tintswalo (Country) summed up: 'I have goals in my heart, I keep focus and I face challenges, difficulties and struggles.' Students saw their backgrounds as a great motivator: they were determined to lift themselves and their families out of poverty and hard times. They showed strong navigational capability because circumstances demanded it of them – they cannot take a university trajectory for granted. But even as we applaud these students from low-income households, we should be deeply concerned that they face such social and educational odds. Universities do not recognise or value the navigational skills that such students bring, more often being blind to their extraordinary capacities and dispositions.

Narrative domain

Being able to tell one's own story through interviews or in the participatory photovoice project (Walker & Mathebula 2020) emerged as important for most of the students. We were influenced by Watts' (2008: 100) definition of narrative capability as 'the real opportunities that individuals have to tell their stories' which entails 'the substantive freedom to deploy one's narrative capital in order to be heard and acknowledged'. Ricoeur (2006) suggests that the capacity to narrate is the first basic capability and that through storytelling we construct our personal identities. Storytelling is an essential part of a rich notion of what it means to be human, it is a fundamental human activity through which we represent ourselves to others and make sense of our lives.

Phelps (2006: 115) argues that speaking about one's own life creates spaces for self-recognition. Stories involve us emotionally because 'they draw us in, challenge our autonomy, and make us cognizant of our inevitable interconnectedness'. Humans are *homo narrans*, according to Phelps (2006) – we understand our lives in terms of narrative and through narrative find or assert ourselves, our place in families, communities, and even institutions. Thus, having opportunities to participate in an attentive community that acknowledges and values our stories through interaction and discussion enhances our humanity. So, to limit opportunities for narrative in a university is to limit what it means to be fully human. We propose that, for students for whom higher education presents many barriers, telling their particular stories, about the experiences of getting into and being at university and hearing those of others like themselves, is especially important.

Miratho students reported valuing the annual life-history interviews because they were given the opportunity to talk about and reflect on their lives and university experiences. Buzwe (City) hoped that his story of hardship would motivate others. Dumisani (City) felt that the students' stories offer a different perspective on university 'that has previously been told from [only] one point of view'. Aluwani (Country) said he had been inspired to listen to and learn from others and the project had 'lent him an ear'. The opportunity to tell their own stories was like a 'reflective mirror' (Thendo, Country), it helped them to speak out and feel like human beings (Tintswalo, Country).

Ndiyafhi (Metro) said that, without the project, 'I would just be living, not reflecting on what I've done'. Ndoda (Metro) was grateful for space 'to express things that needed to be expressed'. Sabelo (Rural) observed:

I love to tell my story to people. The interviews give me a chance to talk, to find a sense of disclosing what I've been through. It lets other people know what is going on with my life ... I would say that you are giving us the opportunity to tell our story.

The photovoice project participants made observations such as: 'This project made me realise that each and every single experience is meaningful' (Sonto, City) and 'We had a chance to express ourselves, to tell our stories to the people. Now our stories are going everywhere, to the world' (Maduvha, Country). Another observation was: 'I feel from now on I can tackle anything in life, because I can see from the photovoice, my story from before I went to varsity and after, and even now. So, I'm just happy and grateful for everything and for the opportunity. [I have] no words, no words' (Mthunzi, City). The notion of feeling 'safe', of being able to tell their stories without fear, of not being alone, and of relationships surfaced in the comments, and the process for participants proved mutually reciprocal and recognitional. They valued both hearing the stories of others and the opportunity to tell their own stories, and to feel a sense of belonging and family with the photovoice community.

Emotional balance domain

For Miratho students this domain is mainly connected to anxiety about material matters which jeopardise the project of securing a university education and qualification. The affective dimension of higher education learning and experiences should not be underestimated. Emotions are drivers of academic engagement, performance, interpersonal perceptions and judgements (Pekrun 2019). Pekrun (2019: 1806) writes: 'Life at university is infused with emotions, such as enjoyment of learning, hope for success, pride about accomplishments, anger about task demands, fear of failure, or boredom occurring during monotonous lectures'. He explains further that enjoyment or interest in a course or project:

Can help a student envision goals, promote creative problem-solving, and support self-regulation [but] excessive anxiety about exams can impede students' performance, compel them to drop out of college, and negatively influence their psychological and physical well-being. (Pekrun 2019: 1806)

The rational and the emotional do not function separately. Instead, higher education is suffused with positive and negative emotions not only for students, but also their lecturers and other members of the university community: fear, worry, anger, impatience, powerlessness, grief, happiness, joy, gratitude, and so on (Mendzheritskaya & Hansen 2019). Emotions affect student motivation, how they go about learning, their collaborative work with peers, and their higher education friendships. As Nussbaum (2001: 1) reminds us, emotions 'shape the landscape of our mental and social lives' and are integral to our reasoning about our lives in society. Emotional development matters for student flourishing in higher education and for the formation of ethical values. For Nussbaum (2000), emotions are one of her ten central human capabilities,

and supporting this capability demands supporting forms of human association (and hence university conditions) that are crucial in balanced emotional development. It means, too, acknowledging that students have personal lives which affect their studies.

Miratho students had feelings of not belonging at university; feelings that no one shared the same worries, anxieties or experiences so that there was no one with whom to talk; and, feelings that it is shameful to be worried or failing. Students felt 'pressure', 'panic', and 'stress', and some reported depression. Lack of income produced worries and severe anxiety for some about how to pay for university studies and how to help out families as well. Teaching and learning processes generated fearfulness, which diminished confidence and provoked worries about failure.

That the students valued this domain emerged from what they did not have and would have liked: sustainable peace of mind and mental well-being during their university studies. Here are just a few examples from the life-history interviews. Ntondeni (Metro) described going to a lecturer for help; he advised her to deregister and leave university. She said, 'That was one of the most painful things in first year that I ever faced. Because he didn't help me ... I ended up crying because I didn't know what to do'. Ndoda (Metro) valued being able to deal with stress and staying calm. He described 'how you can talk to your anxiety and say, "okay, I acknowledge that you are here but you're not going to overtake me"'. Dumisani (City) explained how finances 'play with your mental health'. Nelisiwe (City) struggled after first her grandmother and then her father died, and found her grades dropping because 'I couldn't handle all those challenges thrown at me'. Neliswa (Rural) spoke of a 'dark cloud that is on top of my head'. Kanahelo (Metro) struggled to focus because he was thinking about what would happen the day that his outstanding fees were due. Maki (Metro) feared failing and said, 'sometimes I felt like, I can't do this anymore, the pressure and fear of failing'. Bongeka (Provincial) said, 'when you are stressed everything just comes sliding in your mind ... I feel like today I am suffocating'.

Students looked for ways to help themselves and find 'peace': a university wellness centre, friends, family, going to church, or playing soccer. Students valued peace of mind and calm, but few attained it or enjoyed it consistently though their university education. The capability of emotional balance is intended to capture that academic study will sometimes be stressful and challenging, but natural anxiety should be contained by being assured of an adequate income; by not feeling ashamed of low income; and by access to academic support which builds the confidence to navigate and to contribute. Yet most students felt they should struggle on alone, not worrying parents and not knowing where to find the support they needed.

Inclusion and participation domain

Being treated with respect and being included and participating in society are at the heart of human development, the capability approach, and individual and collective flourishing in education. Universities should then strive to be spaces where everyone is included and participates, particularly members of groups who have been historically excluded and for whom universities are often alien and forbidding places, shaped historically by colonial relations. Here Fraser's (2007) concept of 'misrecognition' is a helpful way to describe exclusions based on race and culture. Her definition refers to the act of denying someone parity of participation in culture and society because they belong to a particular group. It encompasses non-recognition of the extraordi-

nary fortitude that students from low-income backgrounds demonstrate in getting to university. In Bourdieu (1984) misrecognition is something that is not recognised for what it is or is misattributed. In education, we can see misrecognition of the social determinants of academic trajectories, for example, people who do well are ‘clever’ rather than socially advantaged; so what is conceptualised as individual ‘merit’ works to keep the status quo in place. The result of both Fraser and Bourdieu’s forms of misrecognition in higher education is that not enough is being done to support the learning of students from low-income and rural backgrounds.

In this regard, the concept of ‘pedagogic rights’ introduced by Basil Bernstein (2000) is also useful for thinking about the inclusion domain because the concept reveals how closely connected to democratic rights education is or should be. For Bernstein, people in a democracy should have a stake in society and be confident that political arrangements will realise their stake. In education students should have a stake in the education offered and be confident that arrangements will support the realisation of their stake. For this to happen, students need access to three interrelated pedagogic rights: (1) enhancement of confidence, (2) social inclusion, and (3) political participation. All relate to this domain.

The first, enhancement of confidence, is basic and relates to the capability of epistemic contribution which the Miratho students found elusive because their past experiences and the discursive practice of university combine to create barriers to participation. The second, social inclusion, is defined by Bernstein (2000: 8) as the right ‘to be included socially, intellectually, culturally and personally [including] the right [to be] autonomous’. So pedagogic and social arrangements in universities should be designed for such inclusion.

The third, political participation, is the right to participate in debate and practices (including discussions in formal learning, protests for student rights, and so on) that have outcomes in society (including in the university). Clearly this right is closely related to the domain of epistemic contribution and to conversion factors. In the context of university, what is important is not so much that students necessarily directly involve themselves in political activity (the Miratho students supported #FeesMustFall but most did so from a distance), but that they feel their voices are heard and that they are participants in the endeavours of the university so they can learn what it means to be a participant-citizen in society. However, in the unfamiliar environment of a university where students from rural and low-income backgrounds are socially disconnected from more advantaged students, they often do not flourish, experiencing marginalisation and stereotyping, loneliness, loss of voice and loss of self-esteem (Pym 2017; Pym & Kapp 2013; Wilson-Strydom & Walker 2015).

The voices of the Miratho students confirmed that they often did not feel fully included in classes (Chapter 6) and the life of the university even though they value it. Dumisani (City) described how arriving at university was a ‘culture shock’ and completely unfamiliar even though his best friend was with him. They found a former school friend who helped show them the ropes, but Dumisani still felt that he had to live in two worlds because of his precarious finances: ‘During the day I’m at school, I’m supposed to act as if everything is normal to my life ... but how am I going to get to school tomorrow if I don’t have money today?’

Others echoed how a lack of money contributes to exclusion. Khethiwe (City) remarked that his financial difficulties prevented him from feeling included, ‘I felt like

I was the one coming from this poor home, from a poor place, not having accommodation. Everyone else was sorted so I was the odd one out'. Aluwani (Country) felt being well dressed at university was important because people would take photographs of 'badly dressed' students and post them on social media. Yet, as Rimisa (Country) pointed out about people who judged him on his physical appearance, 'I didn't choose not to have money'. One strategy was to make friends with people 'who are like me' and who understand the situation, such as Nyikiwa (City) did, or avoiding 'all those fancy people' (Khuselwa, Metro). Khuselwa explained: 'Don't be fanciful. You are not in the same league as them, especially for me, I'm from a village. There's a lot of things I cannot afford ... You just have to know why you are here and knowing yourself and knowing where you come from.' Khuselwa had initially felt that people from rural areas and schools like hers should not be at university, but it was her roommate who had supported her so that she no longer felt this way. Ntondeni (Metro) had a group of Venda friends like her because 'we understand each other more, because we know of our home background'.

There was frustration about university privileging the already advantaged. Tiyani (Metro) observed that he felt like an outsider trying to fit in because:

Those individuals born at the point of privilege take others as if it's their fault they are poor, and the treatment we are getting from the University, as if we were all born with the same privileges, we have the same background and knowledge of all those academic things ... we are not considered.

Malusi (Provincial) chose to ignore the wealth differences he observed on campus: 'I don't care what they have ... I wear these clothes, when I'm amongst them I look normal. They don't know my background and I'm not going to explain it to them ... You can't explain to someone who has everything'. Ntando (Provincial) recounted an experience of group work where he noticed that students chose others who would fit with them so that 'I was an outsider to the group, such that we couldn't talk, laugh together'.

Thus, exclusion is related to rurality and money, but also language, so that Nyikiwa explained that she had not had white teachers in her rural school and could not use her own language (Tshivenda) in class, as she had been able to do in school. On the other hand, she had observed students who were comfortable, who were used to speaking English, and to presenting and discussing in class. She felt it was up to her to adapt. Tiyani (Metro) described his English accent as 'violent' when he started university. He felt Metro 'loves fancy English' unlike people from his rural background who are not fluent even if they have passed English in grade 12.

At all five universities, students recounted exclusions, primarily based on who had money and who did not, but also on unfamiliar pedagogies and language. Mashudu (Metro) felt wealthier students had a better experience and she had to 'work five times harder'. She had noticed that groups without money would sit separately in class. A small group recounted experiences of racism at the three historically white universities, whereas ethnicity seemed more significant at the two rural universities (e.g. being Venda, or Xhosa, or Zulu). For example, Neliswa (Rural) told us that she had experienced ethnic discrimination because she is Mpondo, who are regarded as being 'farm people' and 'ignorant'. At first, she felt ashamed, but gradually she 'started to

love' that she is Mpondo. At City, social class was significant so that not all black students stuck together according to Dumisani, although one student did recount being ignored when she tried to talk to a white Afrikaans-speaking student (Nyikiwa).

Very few of the Miratho students included white students in their friendship groups. Mashudu (Metro) felt there was racism at the medical school and that lecturers were less helpful towards black students, nor did she encounter any African lecturers. Some students said they did not encounter racial discrimination at the university, but did when they went to local shopping malls (Ndiyafhi, Metro) where security guards are 'suspicious of young black men'. Ndiyafhi felt black students were less confident than white students at Metro and that Metro did not really understand other cultures and traditions. Ndoda (Metro) had not himself experienced racism but had nonetheless observed racism on the campus, feeling 'helpless' about what to do about it. Aphiwe (Provincial) felt that white students 'are more favoured at this university ... you get the sense that whites are superior to you'.

Gender discrimination was recounted by the handful of female engineering students at Metro. Phusu explained that, in her construction engineering course, 'the male students look down on you. They say, "you know what, we'll call you when we're done building this thing [model]". Then when they have to write a report you're the one who has to compile it and print and bind it'. Lesedi (Rural) observed that she disliked how women were judged on the campus by the way they looked and dressed, while all the women students at all the universities had to pay attention to safety issues while travelling to and from campus, especially after dark.

Yet, not all students felt excluded or excluded all of the time. Over time many felt they belonged at university, which they valued, and they gained in confidence, or they took on the obstacles, like Rimisa (Country) who said that 'you can't just run away from these challenges'. Certainly, once funding is secured, students seem to feel more included, like Tintswalo (Country) who said he felt 'free' when his funding came though. Zanele (Provincial) had a diverse group of friends, including white friends. He did not feel invisible in his department and he did not feel the need to change because of his rural background. Only Zanele said he felt being black was working for him in his field (computing) and he did not feel disadvantaged.

Future work or study

Our final domain relates to futures and moving on from university which include being prepared by university to obtain employment, be self-employed, or continue with studies after the initial degree or diploma. For low-income students this involves social mobility, that is, 'the ability of an individual to have their position within society not be dependent on their family background' (Cunninghame 2017: 74). However, low equality and low economic growth in South Africa present significant challenges to social mobility which involves both individual aspirations and wider conditions of possibility. Social mobility and reducing social inequalities must go hand in hand. Probably because of the inequality gap, the graduate premium in South Africa in recent years has offered high rates of private return (Montenegro & Patrinos 2014), while higher levels of education are associated statistically with lower poverty levels (Sulla & Zikhali 2018). Of households who did not experience a single incidence of poverty between 2008 and 2014, 93% had a head with at least a secondary school education

(Sulla & Zikhali 2018). Having some tertiary education pre-Covid lowered the risk of falling into poverty (Sulla & Zikhali 2018). A higher level of education of the household head matters statistically, but it should combine with stable labour markets, which is problematic in South Africa.

While we do not see social mobility on its own as a panacea or the solution to inequality, it is still the case that Miratho students and their families optimistically assume that a university degree will lead to employment and mobility for not only the individual student, but also the family (and statistics and family experiences support this perception). Thus, as explored in Chapter 7, without exception, the students valued higher education for enabling employment opportunities and hence being in a position to improve the lives of their families. Employability and what universities can or should do is fully explored in Chapter 7, together with student decision-making and the obstacles they face. What is valued highly is a decent job and income after university.

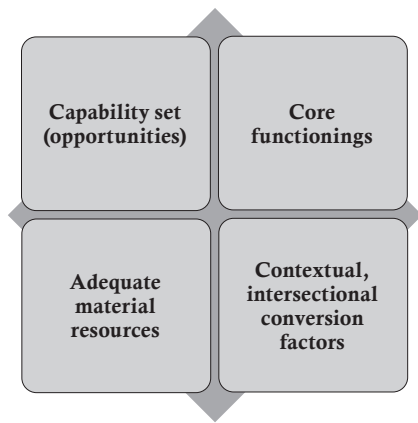
Some students had gained work experience as tutors while still at university or in some cases running their own small businesses (making soap, running a car wash, refurbishing old cars, and so on). Those studying to be teachers have a clear future work pathway and will probably all get jobs especially if they are willing to work in rural schools. Some had broadened their understanding of work possibilities. For example, Aluwani (Country), who had imagined that he could only work in the public sector for Stats SA, now understands that he could work in health, the Reserve Bank or the private sector. But broadening employment opportunities generally means leaving rural homes. Aluwani thought he would have to move to Gauteng, alternatively he could pursue his small business ideas and stay in his rural area.

What is valued is being able to have a genuine choice between two or more valuable possibilities, including the possibility of further study. Not all the students had finished their first degree or diploma at the time of the final interview in 2020 and a handful may not finish at all. Not all of those who had completed had found work, like Sabelo (Rural) as a social worker, Buzwe (City) as an accountant, or Neliswa (Rural) in marketing and public relations. For all these students, unemployment has been unexpected and deeply dispiriting, underlining the value for them of the functioning of being employed.

Step three: Miratho Matrix

Through Chapters 1 to 4 we have outlined a capabilitarian framework and key dimensions, with evidence in Chapters 3 and 4, for the Miratho Matrix (Figure 4.1) to show the four features that require attention to achieve functionings outcomes equitably: (1) capabilities formation across all eight domains, (2) core functionings, (3) adequate material resources, and (4) contextual, intersectional conversion factors, both objective and subjective at the level of the socio-economic, higher education and individuals. We elaborated all of these in this and the preceding chapters and flesh them out further in the chapters that follow. The matrix therefore outlines a critical capabilitarian, multidimensional, contextual approach to learning outcomes divergent from usual approaches (Chapter 2).

Figure 4.1: Capability-based Miratho Matrix



We acknowledge that measurement against the matrix is complex and may be imprecise. But Sen (1992: 49) explains that, ‘it is undoubtedly more important to be vaguely right than precisely wrong’, while Clark (2017: 73) adds that it may be ‘vaguer indicators that provide guides to more complex and malleable phenomena’. Our four-dimensional matrix is not a blueprint for change, rather a working human development framework open to further development.

Conclusion

Our approach in developing the Miratho Matrix is one which seeks both to ‘import’ (Brennan & Naidoo 2008) social justice concerns grounded in the South African Constitution with its emphasis on human rights, dignity and equality, and to ‘export’ social justice back into society through a capabilities conceptualisation and more equitable outcomes across the diversity of students. The role of higher education is to enable and expand the opportunities (capabilities), while the role of the individual agent would be to mobilise their own agency and make active choices as an important element of living a life of freedom.

The capability set proposed has emerged from theory, from student voices, and from dialogue. We think it robust enough to merit further debate and consideration by universities in relation to discourses and strategies toward providing quality higher education. However, it is the matrix as a whole that needs to ground such discussions so that capabilities or functionings are not dislocated from their normative underpinnings or reduced to unidimensional measures, or the structures which create and perpetuate inequalities conveniently overlooked.

In the chapters that follow we consider in more detail to what extent universities are working towards greater equality, whether or how the eight capability domains are being expanded in the higher education space, and how conversion factors enable or hinder such expansion and hence need to be changed.

CHAPTER 5

Opportunities and obstacles in achieving higher education access

The previous chapters offered an overview of the Miratho Project and its capabilitarian framing. In this chapter, we ‘drill down’ to the life histories of the students (N=66) to examine factors enabling and constraining their higher education university access. Beginning with a brief sketch of the access literature, we then consider the intersection of seven conversion factors in enabling or hindering access for the Miratho students and, by extension, low-income rural and township youth in general. Using student voices, we examine the challenges they faced and the success they enjoyed in securing a university place.

Spiegler (2018) sums up two well-established findings on inequality in education: (1) access to and achievements in education are shaped by social background; and (2) while there are always examples of individuals who make it, despite coming from lower social strata, these achievements do not shift into group patterns. Thus, Unesco’s (2017) report on 76 mainly low-income countries found that, in 2016, only 1% of the poorest 25–29-year-olds had completed at least four years of university, compared to 20% of the richest. The OECD (2012) affirms that, among its member countries, students from more educated families are almost twice as likely to attend university than their peers. In the UK, USA and Australia research focusing on inequalities in access to opportunities and outcomes, especially social class, reveals a complex intersection of personal efforts and aspirations, parental education history and economic and cultural capital, stratified university systems, and elite university claims to meritocracy in their admissions (see McDonough & Fann 2007; Pitman 2015; Reay et al. 2001; Stevens 2007; Threadgold et al. 2018). In short, the odds of accessing a university education are stacked against those from low-income backgrounds.

The pattern of uneven opportunities is similar for South Africa. A quantitative cohort study on access and progression using national grade 12 examinations data from 2008 to 2013, data from all South African universities between 2009 and 2014, and the 2011 national census found a correlation of grade 12 scores and university access (Van Broekhuizen et al. 2016). The study found that patterns of university access reveal that the school system strongly influences who reaches grade 12 and who attains a bachelor level pass (the minimum for admission into undergraduate degree studies). They found that access turns on grade 12 attainment, school attended, relative wealth of the school

district, race, gender, age and geography (urban/rural and provincial). While these factors intersect, schooling emerges as most important. Chapter 3 identified that access to good-quality schooling is highly uneven by race and income.

Qualitative studies on access similarly show the effects of income and race, family background, aspirations, schooling and university stratification disguised as meritocracy (e.g. Kapp et al. 2014; Naidoo 2004; Walker 2020b; Walker & Fongwa 2017; Walker & Mkwanaenzi 2015; Wilson-Strydom 2015), as well as personal effort or epiphanies (e.g. Marshall & Case 2010). Except for Walker (2020b), these studies do not elaborate the specifics of student choice-making about access and the interlocking influences on such choice processes and outcomes. Moreover, because '[e]xpanded access to higher education alone does not fully address the issue of social equity' (Altbach et al. 2010: 49), we understand access in terms of widening participation and making equal opportunities available to previously marginalised groups (Goastellec 2008; Morrow 1994; Wilson-Strydom 2015).

Our capability framework emphasises equality of opportunities and freedoms to make good well-being choices, instead of narrowly understanding access only as the numbers who successfully enrol. The framework acknowledges the myriad inequalities that influence access and enables us to reimagine the conditions necessary for equitable access. Most of the 66 students lived with one parent, usually their mothers, or with extended family members (grandmothers were prominent), while 20 students had absent fathers (alive but uninvolved with the family). Most families relied on a combination of child and pension grants and incomes from odd jobs, while a few had stable incomes from jobs requiring some sort of qualification. Fewer than ten students had at least one parent who had graduated from university. Of the 66 project students, 11 enrolled for diplomas and 55 for degrees in the humanities, commerce, education and science. Of those enrolled for degrees, five were in extended programmes²⁰ which add an additional year to the degree. We asked what contextual factors enabled or inhibited these varied choices about access to university and extrapolated underlying capabilities. What follows is a discussion of the conversion factors influencing access and the extent to which low-income rural and township youth converted their available resources into getting into university.

From the life-history data we identified seven overlapping contextual conversion factors. These were grouped into (1) *material* (money/funding); (2) *educational* (schooling); (3) *environmental* (geography, community development); (4) *social* (information and support, and extended families and significant others); and (5) *personal* (personal attitudes, values and characteristics). However, students' lived experiences were not as neatly packaged as the analysis might suggest, rather intertwined and intersecting. Although conversion factors combine in slightly varied ways for each person, they made visible lived, day-to-day encounters for all students while trying to get into university – 'their motivations, aspirations, encouragements and benefits ... the constraints, incurred costs or compromises' (King et al. 2019: 5) – as well as common patterns across the group.

20 An extended degree programme is meant for students from disadvantaged schools who do not meet university requirements. Some universities offer bridging courses in the form of an 'extended degree', which adds an extra year to a degree.

Material conversion factors: Money/funding

Funding was a major factor influencing choices about university directly and indirectly through its intersection with other conversion factors (see Chapter 3). When there is inadequate income, there is little or no resource to convert into capabilities and functions; lack of money was an access constraint that nearly all the students faced. Money influenced aspirations, university and degree choices, and application processes.

Although all students were from struggling low-income families, five explicitly mentioned being unable to afford food. For example, Nyiko (City), who lived alone after his grandparents died and his siblings moved away to attend university, sometimes had to live on ZAR 200 a month; there were times when he 'could just wake up and ... didn't know what to eat'. Madoda (Rural) lived alone near school and would sometimes get insufficient money from his parents and 'sleep without eating'. Rimisa's (Country) family of 15 survived on ZAR 5 000 a month, which was a 'challenge', while Lesedi (Rural) and five cousins were raised by their grandmother after her parents' death so that, 'sometimes you don't have food to go to school. Sometimes you don't have shoes'. Similarly, Tiyani (Metro) noted that occasionally, 'there was no money for food and stuff' as his divorced mother singlehandedly raised seven children.

Low-income households understand the value of education to the family's potential benefit. This is best illustrated by Thapelo's (Rural) father who refused to let Thapelo work with him in the mines saying: 'I want you to study more, I don't want you to just work for ZAR 2 000 that I'm working for. I want you to have a better future than me.' With a few exceptions, Miratho students' families valued their child going on to university for the instrumental benefits.

Despite not being food insecure, most students experienced other financial challenges which, to some extent, were determined by an intersection of parents' education level, (un)employment and family structure (discussed later). For example, Tiyani's (Metro) parents were separated and unemployed, 'so there was no source of income'. He explained how:

I would see other parents early in the morning carrying their handbags going to work and stuff with beautiful clothes. And then my mum with those not so beautiful clothes there she is pushing the wheelbarrow, the sun is very hot but she would push that wheelbarrow so that I can get money for transport.

Maada (Country) explained the difficulty of studying in a one bed-roomed house accommodating a family of four (mother, brother, niece and herself). Her mother earned a living by 'babysitting'. Sifiso (Provincial) from KZN lived with 'too many' (15) people: grandparents, cousins, uncles and aunts. His grandparents received social grants and his uncles had temporary jobs. Despite financial challenges, parents/guardians nurtured their children's educational aspirations. Khethiwe (City) explained that:

You know what your financial background is. You know how home is. You know home is a very difficult place. They even know, themselves, that, you know: we cannot afford to send this child to university, but we're going to encourage them to do well in your school; just study and get that matric [grade 12] certificate. We're going to make a plan afterwards.

Khethiwe's statement highlights the constraints on long-term planning. Given families' low incomes, there was a considerable gap between their earnings and education costs which made future planning untenable, unthinkable for some.

Financial considerations prevented students from considering university. Ten students did not apply for university because their families could not afford it. Lesedi, an orphan, who was raised by her grandmother, a pensioner, 'knew that she was not going to afford everything if I went to university'. This knowledge of limited funding shaped students' attitudes as illustrated by Akhona: 'I never thought of going to university even when going to high school because of the situation.' At times, financial challenges resulted in students' not seeking information on further study. Thus, Aviwe (Rural) 'didn't know what to do, I didn't have a career goal'. It was only after securing a Thusanani Foundation bursary that he applied to universities.

As noted by Rimisa, the 'first problem' was financial. He only applied to Country, which was nearer and cheaper than other universities. This was the case for several students. Dumisani chose City over a more expensive university because he did not want to be 'selfish' and be a 'strain' on his parents. Similarly, Olwethu settled for Rural which was cheaper, despite his preference for higher-status universities such as Metro. Lack of funding also influenced degree choices, with some students opting to study education because there was government financial aid attached. These included Anathi (Provincial) and Tintswalo (Country) who, despite wanting to study psychology and law respectively, chose education because it came with a Funza Lushaka bursary and, for Tintswalo, also guaranteed employment after graduating.

Due to financial constraints, some students took circuitous access routes: three changed institutions after securing funding, while two took 'gap years'. For example, Thapelo matriculated in 2011 and worked in Mpumalanga for two years. In 2014 he enrolled at a university of technology for electrical engineering but left a semester later because he had no funding. In 2015 he enrolled at Rural for a BEd after securing a Funza Lushaka bursary but could not continue with engineering. Also, despite being accepted at Rural, Bongeka took a 'gap year' and only enrolled at Provincial after securing funding, as did Zanele (Provincial) who finished grade 12 in 2014 and started university in 2016. In most instances, the Thusanani Foundation helped. While significant others contributed towards university access in various ways, most contributed financially.

Despite all students highlighting financial challenges, some experienced smoother access trajectories than others. From Metro, Wanga, Khuselwa, Rito and Mashudu achieved APSs above 42 points and therefore qualified for merit bursaries which covered their registration fees. In addition, Rito (Metro), knowing his mother could not afford university, bought airtime and 'just called companies' until he secured a partial scholarship. For others, the intersection of funding with factors such as lack of information about university fees resulted in students' not applying or not knowing how to apply for bursaries. For instance, Mbulelo (Rural) did not apply because of a lack of money but then heard about National Skills Foundation (NSF) funding from a friend and applied successfully.

Funding as a conversion factor has received some attention (see Chapter 3), with researchers noting the access impact of bursaries such as NSFAS despite its inability to assist all deserving students (Mngomezulu et al. 2017). However, notwithstanding the prominence of funding as a conversion factor, students' narratives also point to

interventions by significant others and their own personal characteristics as ameliorating factors (explored later).

Educational conversion factors: Schooling

Schooling is central to access because one cannot qualify for university without a diploma or bachelor pass at grade 12. As highlighted in the previous chapter, the 'two-economy system' (Bloch 2009) characterising the South African public school system discourages and makes difficult the attainment of the access functioning (Bloch 2009; Njoko 2018; Spaull 2014).

Of the project's 66 students, 60 had attended quintile 1, 2 and 3 fees-free public schools, while only two attended quintile 4, and four attended quintile 5 schools. Lower-quintile schools were described by students as under-resourced, lacking solid buildings, furniture, books and computers. In one case, Tintswalo (Country) recounted how wandering goats ate books or papers left unattended overnight. Teachers mostly communicated in local languages, even though the official language of instruction is English. Books were shared among two or three learners and, in extreme cases such as in Aphiwe's (Provincial) school in Joe Gqabi (Eastern Cape), among five or more students. At least five students had under- and unqualified teachers. For instance, Buzwe's (City) economics teacher taught grade 12 despite not having completed his studies, while Thendo's (Country) accounting teacher also taught mathematics, for which he was not qualified. Thus, Khethiwe (City) described his teachers as 'limited editions' because they could teach the basics only.

School quintiles can serve as a proxy, albeit imperfect, of socio-economic background and quality of education; children from low-income households attend lower-quintile schools located in disadvantaged areas. Spaull (2013: 25) notes correlations 'between language, socioeconomic status, geographic location and school functionality'. Given such conditions, Lesedi (Rural) from a quintile 3 Eastern Cape school explained that 'everyone that goes to that school knows that there are less opportunities for me to go for university'. Similarly, Malusi (Provincial) from a quintile 3 school in Harry Gwala (KZN) noted that learners were 'from really, really poor backgrounds' and 'not motivated' with 'nothing that inspire[d] them to want better. They're at school [because] there is nowhere else they can be'.

Comparatively, upper-quintile schools were better resourced as noted by five of the six students who attended them. For instance, Kamohelo's (Provincial) quintile 5 'semi-private school ... had everything' which included good facilities, computer and science labs and good teachers. Siviwe's (City) quintile 5 school was also well resourced and had 'brilliant', 'dedicated' and 'committed' teachers. Unlike the other five, Sesethu's (Rural) school in Durban was different. Despite having 'privileged' pupils, the school had no library, science laboratory or sports facilities and teachers did not push students to study: 'If you want to sleep, you sleep. If you want to study, you study. It's your own future.' This school was an outlier, as upper-quintile schools are generally better resourced and students are expected to perform well, as will be discussed later. A few student narratives illustrated Spaull's (2013: 30) critique of lower-quintile schools' 'short-sighted' focus on grade 12 results. For instance, at Bongeka's (Provincial) school, 'not everyone was encouraged enough to further their studies, they believe[d] that when

you have a matric certificate, then that's your achievement'. Also, Thapelo (Rural) 'just wanted to pass grade 12 because my parents want[ed] me to go to school'.

Demonstrating the value placed on good-quality education, many of the parents/guardians made sacrifices to send children to 'better' schools which they believed would provide more opportunities. Despite still being under-resourced, many students attended lower-quintile schools (or upper-quintile schools for those who could afford them) some distance from their homes because of their good reputation, discipline and/or grade 12 pass rates. To get to these schools, some students walked daily distances of more than 10km (Maduvha, Country) and travelled by bus or 'transport' for more than an hour (Aphiwe, Provincial), while a few went to live with relatives (Ntando, Provincial) or in rented accommodation nearer schools (Madoda, Rural). For example, while Madoda (Rural) rented a room, a few such as Sesethu (Rural) stayed in boarding facilities attached to higher-quintile schools. Only a few students, for example, Nyiko (City), went to nearby schools regardless of the quality due to financial constraints. This was not to say his family did not value education, as his sister constantly encouraged him to work hard and go to university.

In a bid to find a good-quality education, four students went to commercial or technical secondary schools with specialised curricula. For instance, Nelisiwe's (City) grandmother, a small market trader, chose the 'best', that is, a fee-paying commercial school in Soweto which charged ZAR 1 200 annually. Despite raising 15 grandchildren, Nelisiwe's grandmother sent only Nelisiwe to this school because she had 'potential' and had done well at primary school. Nelisiwe's story illustrates the sacrifices parents/guardians make to get their children educated, as well as the intersection of schooling, funding and extended families and significant others in influencing access. Because of their specialised curricula and emphasis on achievement in gateway access subjects such as mathematics, such schools broadened the opportunities available to students. However, they also pre-determined the programmes students could study if accepted into university. Accordingly, Nelisiwe developed an interest in accounting and enrolled for a BCom Accounting degree.

Despite several challenges, most (not all) schools tried to provide information about university by doing at least one of the following: organising career exhibitions; inviting university and/or college representatives; hosting motivational speakers; and, organising trips to nearby universities. For example, City, Metro and several further education colleges visited Langutani's (Provincial) school in Soweto. Also, Makungu's (City) school trip from Vhembe to Johannesburg included attending the University of Pretoria's open day where City and Metro representatives were present. Country representatives visited Konanani's (Country) school's career exhibition, '[s]o it was not that hard for you to know about the university'. In general, university and college representatives visited schools near them. For example, rural schools in Vhembe would only be visited by local rural university and college representatives. Only eight students, seven from the Eastern Cape and one from Limpopo, did not get any university or college visits at their schools. According to Thulani (Provincial), his school in KZN was only visited by representatives of further education colleges because universities lacked confidence in the abilities of rural learners.

Upper-quintile schools held open days and encouraged learners to look beyond grade 12. For Kamohelo (Provincial), such schools provided information about

universities and study programmes because of the need to maintain high academic standards and to encourage as many as possible to qualify for university. Phusu (Metro) also explained that, '[i]f you're from a school that doesn't have an image or a goal', then few people would go to university because 'they were not shown such opportunities'. Because her quintile 4 school 'was academically orientated' and had an image to 'protect', it provided information about 'top' universities and pushed students to work hard and qualify.

The constraints associated with lower-quintile schools could act as enabling conversion factors encouraging hard work and hope and broadening horizons for students. Teachers, and sometimes school principals, provided extra support for students, which made the difference between passing and failing. This included extra morning, evening or weekend classes, photocopying books for students, encouraging and telling learners about university, and sometimes providing application forms. Thendo's (Country) description of his school encapsulated the experiences of many lower-quintile students, especially in the Vhembe district:

The buildings and stuff, they are not in good condition, actually it's one of the poorest in terms of buildings, but in terms of the heart and stuff yes, those people, like the principal, he comes at six in the morning, goes at eight, eight nine ten, every day, Monday to Sunday.

For most students, one or two teachers constituted 'significant others' playing a substantial role in facilitating access. Therefore, despite attending under-resourced schools, a few students, such as Olwethu (Rural), noted that about 60% of learners from his school went to university. This illustrates Govender's (2017) point that, despite the weaker results obtained by lower-quintile schools, there are notable exceptions where poor rural and urban schools push against the odds to produce successful grade 12 students. Nonetheless, conditions prevailing in most lower-quintile schools position students for failure. However, as evidenced by the 66 students, there were different ways to work around these challenges. These included personal characteristics such as resilience and the intervention of significant people such as parents and guardians who selected better performing schools and teachers who provided extra assistance. But this placed considerable demands on student agency to do the 'heavy lifting' to achieve access.

Environmental conversion factors: Geography and community

Geography

The previous chapter outlined conditions in Limpopo, the Eastern Cape and KZN, where most of the Miratho students came from, and examined how geography contributes towards inequalities. Unlike Altbach et al.'s (2010: 40) observation that 'geography is easily underestimated as a factor that contributes to unequal participation in higher education', it was a prominent factor among low-income rural and townships students. There is still limited information on how rural students access, participate and move on from university despite the growing scholarly literature on the impact of geography, specifically rurality, in accessing university (McMillan & Barrie 2012; Njoko 2018;

Timmis et al. 2019) and reports by organisations such as the Thusanani Foundation,²¹ Rural Education Access Programme (REAP)²² and Axiom Education in the Eastern Cape.²³ Similarly, there is little research on the access and participation trajectories of township youth (Johnson 2007; Kapp et al. 2014; Mampane & Bouwer 2011).

The effect of geography was more problematic for rural than township students. This was because of the lack of basic amenities such as electricity and roads, technology, and the distance from towns and universities and the information they provided. Students generally associated rural areas with a lack of knowledge and development. For instance, Maada (Country) described her village in Vhembe (Limpopo) as 'a very ruralised place ... so there is no development ... It's still poor. Poor in knowledge'. This was also highlighted by Khuselwa and Mashudu (Metro) among others. Showing the negative intersection of geography, money and information, Maki (Metro) from the Eastern Cape explained that 'people from rural areas don't know much about bursaries and all that, you are like, I don't have money so I am not going anywhere'. A counter example was Mashudu (Metro): despite being from a 'deep village' with no roads and social problems such as substance abuse and early pregnancies, Mashudu's family was 'very supportive' of her academic development and it was always expected that she would go to university.

The intersection of distance from towns and a lack of funding made travel difficult. Demonstrating how this influenced the acquisition of information, Wanga (Metro) from Vhembe explained how students whose families relied on social grants could not afford to travel to internet cafés 'where they [could] find more information'. Even when Country, the nearest university, organised a career fair, there was no money for transport. For many, the distance between home and university determined institution choice, illustrated by students who selected universities based on their proximity. However, a few students deliberately selected universities far from home, for example, Ntodeni and Wanga (Metro) and Nyikiwa (City).

While challenges such as limited access to the internet were mentioned by most, Thulani (Provincial) additionally noted that universities 'didn't bother coming to us'. This was because 'they don't think people from villages will do it. Like they don't have resources, and the education level is very low, so they don't trust that they [village students] will produce what they want'. Rito (Metro) from Limpopo also mentioned that 'it is really true that higher education is something that isn't accessible, because when you are coming from a village you only think of what is happening in that small village of yours'. Thus, a rural background becomes a significant challenge for students who qualify and aspire to go to university.

Students' life histories also revealed how perceptions and expectations are shaped by one's background. Khuselwa (Metro) had wanted to study medicine:

Since I'm from a village when you tell them I want to do medicine they'll be like, 'Oh, will you be able to do it? Will you pass your grades well? Are you good in maths, are you good in science?' Yes, things like that. So, I got discouraged and I didn't apply for medicine.

21 <http://thusananifoundation.org/>

22 <http://www.reap.org.za/index.html>

23 <https://www.axiumeducation.org/>

While geography can be viewed as a conversion factor with a negative impact on opportunity in this context, it was largely overcome by determination and support from others. As highlighted by Khethiwe (City), one ‘needed to have an extra vision to be different and make it to this kind of place [urban area]’. In addition to positive attitudes, the help of role models, such as parents, ‘encourage you to see out of the village’ (Mashudu, Metro).

Community

Home community can be a social conversion factor but here we designate it as environmental to capture the specificity of rural development. This illustrates that conversion factors are not neatly categorised, not least because many of the problems described would apply also in urban townships where the geography of apartheid spatial planning is still apparent. Here we consider students’ perspectives on their communities in relation to development challenges and how they enabled or hindered access, as well as intersections between home community and geography, money, family, schooling and information and support.

Fewer than half of the students described their communities as having good infrastructure or services such as tarred roads, water, electricity, with social challenges including poverty, crime, gangsterism, drug and alcohol abuse, early pregnancies, youth unemployment, lack of motivation and prospects, and people dependent on social grants. For instance, Malusi (Provincial) from a village in KZN described villagers as ‘very poor and uncivilised’, ‘violent, unmotivated’ and without any ‘direction in life’. He described his village as comprising mainly ‘mud houses, with some RDP [Reconstruction and Development Programme; low-cost housing project] homes’ where water and electricity were a problem. Consequently, ‘very few do end up at varsity, very, very few’. A lack of electricity meant limited or no access to technologies such as the internet and television, which restricted young people’s exposure to knowledge because ‘[y]ou cannot understand if you don’t have a TV and you’re from rural areas, how are you going to know about the world?’ (Thapelo, Rural, from the Eastern Cape).

While most students had encouragement from home and school, communities as a whole were rather less supportive. Indeed, Maduvha (Country), Lungile and Sonto (City) were actively discouraged from studying by community members. For instance, in Maduvha’s ‘small’ village, few people took school seriously, especially for girls. She was criticised and called names, saying, ‘there’s no one at your home who went to varsity so who are you? What are you doing?’ From Lungile’s township, community members would ask, “‘Didn’t you pass grade 12?’” Then you say “‘Yes’”. They say, “‘what more do you want?’” Communities with socio-economic challenges are generally associated with poor educational outcomes, compounded by gender stereotypes which relegate women to family roles. This reduces their chances of getting a good-quality education even more if they also come from low-income families and live in rural areas (Taylor & Yu 2008; Ward et al. 2015). Yet, despite the social and cultural challenges, slightly more than half of the students described their communities in positive terms such as: ‘supportive’, ‘very close’, ‘lovely’, ‘ubuntu’, ‘people with super hearts’, ‘one big family’, ‘fun’, ‘improving’, ‘nice’, ‘not that bad’, ‘peaceful’, ‘quiet’, and (in one or two cases) ‘no violence and crime’. Underscoring the importance of rural community, Thendo (Country) explained that he ‘was raised by the community’ where one has ‘uncles, aunts ... extended family’.

Regardless of students' positive perceptions of their communities, they still noted challenges in accessing university related to a lack of information, motivation and funding. While a few, such as Thapelo (Rural), remarked that young people were increasingly accessing university, the dominant community view was still negative or indifferent, as 'many people live off social grants and have no information and funding' (Neliswa, Rural) and university representatives 'lack faith in rural learners' ability to succeed (Thulani, Provincial). Dumisani (City) also explained that, in his township, 'people drop out easily and it's not questioned', while Langutani (Provincial) from another township explained that few young people from her community go to university because families rely on social grants and unemployment is high.

Unsupportive communities worked as a push factor in one of two ways. First, they motivated young people to improve their circumstances so that they could move to more affluent neighbourhoods. For instance, because Lungile's (City) community in Vhembe had many teenage pregnancies and gender violence, she wanted 'to get out'. Circumstances also motivated young people to work hard with the aim of improving their communities, such as in Tintswalo's (Country) case. He chose to study education so he could 'motivate others' because few people took learning seriously. Similarly, because Sonto's (City) township was 'rough', and had crime, rape and abuse, she chose to study politics so she could 'lend a helping hand to people in the community and make a change'. Thus, students made challenging circumstances work for them in ways that influenced their aspirations and degree choices.

Despite challenges, there were also instances where community members motivated, supported and assisted learners. Nelisiwe (City), from a large urban township, made the elders 'proud', while 'even the uneducated women' from Sesethu's (Rural) OR Tambo village 'always encourage[d] us to go to varsity, to make a change'. In addition to encouragement, a few students received financial support from community members. Rimisa (Country) noted how bursary forms from the department of health were distributed among the youth. Also, from Vhembe, a church member paid Ntsako's (Metro) university application fee. In these ways, communities offered resources for students to convert into university access.

Social conversion factors: Information and extended family and significant others

Information

Many qualifying rural and township youth do not consider or are unable to access university due to a wide education information gap. Information influences access, starting from decision-making during the transition from secondary to high school, about grade 10 subject choices, university application or admission requirements, funding requirements (including bursary applications), and so on.

To choose a degree/diploma of their choice, students require information, for example, relating to gateway STEM subjects such as mathematics. While it is important to consider ability and interest in selected subjects, students can 'in many ways [be] constrained by their own ignorance of the consequences of selecting subjects for their upper secondary education, or indeed by their academic performance' (Cosser & Du

Toit 2002: 16). Most schools provided some sort of support for choosing grade 10 subjects and other post-secondary school decisions such as university and programme choice, or they chose for the students. However, a few schools did not provide any information about university, leaving learners to decide with the help of family and friends. In choosing grade 10 subjects, these students mostly relied on 'hot' sources of information (Ball & Vincent 1998), albeit unevenly reliable: teachers, friends and family members. For example, Rudzani's (Metro) school did not provide information and he went along with his family's choice of science because 'we knew that if you choose science, you can go anywhere'. Tiyani (Metro) knew he wanted to study engineering but did not know the foundation subjects, so he chose science because 'everyone' in his family had studied maths and science. A few, such as Menzi (Provincial), used multiple sources of information. He chose maths and science because 'about 90%' of his village's youth selected it, his brother, a second-year electrical engineering student, suggested it (hot source), and also, most bursary applications he saw required maths (cold source). Thabelo (Country) chose maths over maths literacy (which does not allow entry to a degree in some fields) after teachers told students that maths literacy would disqualify them from studying BSc degrees. Of the 66 students, 19 chose the easier maths literacy over maths. This did not affect their choice of degree or diploma, except in Nyiko's (City) case. Nyiko chose maths literacy because the maths teacher used corporal punishment. Consequently, he could not enrol for an accounting degree and settled for an accounting diploma. Conversely, Khethiwe (City) chose maths literacy due to low maths grades.

Grade 10 subjects were also indirectly selected by enrolling in technical schools. As noted earlier four students went to specialist commercial or technical schools. While Ndiyafhi (Metro) and Siviwe (City) seemed unaffected by this, Nelisiwe and Sonto (City) were unaware of this limitation. Sonto, who had wanted to study law, noted, 'I didn't even know what commercial [school] meant'. Similarly, Nelisiwe had to change from wanting to study medicine to accounting: 'I just knew that it's something to do with accounting and numbers.' While all students were able to achieve diploma or bachelor passes and enrol in different universities, for students such as Nyiko and Sonto, the choices had already been limited by their schooling.

Low-income students are 'doubly disadvantaged'. First, they lack an extended network of people with prior knowledge of university capable of providing hot knowledge; second, their context is one in which accessing cold knowledge from the internet or universities is limited (Ball & Vincent 1998: 380). Thirty-two of the 66 students were the first in their extended family to go to university (first in family). We use 'first in family' to differentiate between first-generation students whose parents do not have degrees but who might have siblings at university or who have graduated. In general, families had little or no information on, for example, course options, navigating the admissions processes and applying for financial support. Olwethu (Rural) failed to enrol at his university of choice due to funding and applied for medicine at Rural. However, he was unaware of the need to submit his grade 12 results and missed the entrance interview. Because he did not want 'to sit at home', he enrolled for a BSc Biological Science despite not knowing anything about it. Others obtained information on universities and study programmes piecemeal from teachers, friends and family members. Illustrating the importance of hot knowledge in bridging the information

gap, Thapelo (Rural), who 'didn't know about universities', applied to a university of technology after a friend told him 'it's good'. Also, Rudzani's (Metro) sources of information and application forms were his friends.

Students began considering going to university at different life stages. Around ten of the 32 'first in family' began thinking of going to university earlier than grade 8, despite not having knowledge and funding. Most got information on university only at high school. For instance, Langutani (Provincial) 'never actually thought' of going to university until teachers encouraged them and Thusanani Foundation visited her school in grade 12. Three students from the Eastern Cape, two from Limpopo and one from KZN considered university only after passing grade 12. For example, Thulani (Provincial) from KZN 'didn't know what to study' and how to pay for it. Also, highlighting the intersection of a lack of information and geography, Kananelo (Metro) from Joe Gqabi 'didn't have that much knowledge' about university and career choices 'because I had no one to mentor me or anyone to inspire me'. He attributed this to being from a small town where 'you don't get so much people who are well-educated'. Because he was 'a bit confused' about what to study, Kananelo chose BCom after failing to qualify for science education, despite not having studied high school accounting. In general, those with family members who had gone to university thought about going to university earlier, due to a combination of family expectations and support offered at school.

Also highlighting the importance of information and its intersection with community and funding were the experiences of Langutani (Provincial), Ntsako (Metro) and Sakhile (Rural). Their degree choices had been influenced by television. Watching medical detective shows made Langutani aspire to study neurology (although she failed to get the required points); Ntsako became interested in civil engineering from watching the National Geographic channel; and Sakhile wanted to study law from watching a series about lawyers, but chose education because his rural satellite campus did not offer LLB degrees. Ntsako, who had previously lived with his grandmother in a house without electricity, started thinking about university only at age 13 after moving in with his mother. It was on television that he first saw people graduating.

Students in general attributed a lack of information to geography, more specifically, rurality, cascading down to communities and families. For instance, Maada (Country) from Vhembe indicated that 'we did not have much information' because 'it is a very ruralised area'. Akhona (Rural) from OR Tambo noted that, 'others [were] not even exposed to what university is' because no one told them about university or the need to go there. Ntodeneni (Metro) from Vhembe highlighted the prevalence of youth living with extended family members without 'much knowledge about university'. Also, Rimisa (Country) from Vhembe explained the lack of internet access in rural areas which could provide information for university and bursary applications. Despite limited resources, both Maada and Rimisa acquired both hot and cold knowledge from career fairs where Thusanani Foundation and Country representatives were invited, in addition to a visit by a university (Maada), and visits by universities and colleges in Limpopo (Rimisa).

The internet was a source of information for fewer than half of the students, including those from rural areas in Limpopo such as Ndoda, Mashudu and Khuselwa (Metro), and a few from the Eastern Cape such as Zanele (Provincial) and Mbulelo (Rural). For most, information from the internet added to students' hot knowledge, enabling them to 'try to "fill out" or contextualise the grapevine' (Ball & Vincent 1998:

382). For example, Ndoda chose Metro on his teachers' and mother's advice. He then selected construction studies after listening to a motivational speaker and doing further research on the internet. Similarly, Mbulelo (Rural) visited construction companies and conducted internet searches in grade 12.

Students' perspectives on other learners' failures to access university revealed the importance of information and its intersection with other conversion factors. Ntando (Provincial) from Joe Gqabi explained: 'When you speak to others they are like, what is Bachelor, like they don't even know what's a Bachelor.' Highlighting the convergence of several factors, Bonani (Provincial) from Joe Gqabi indicated that it was because 'they don't have that passion, they lack knowledge in terms of choosing a course, the careers and the financial aid application forms for universities. And then ... they are not motivated and encouraged to pursue further their studies'.

Noting that a lack of information 'leads to many things', Khuselwa (Metro) explained, 'you think that I can't go to varsity because my family doesn't have money but we have NSFAS'. Similarly, Lwazi (Rural) noted that young people in the OR Tambo district generally do not access university because of a lack of information about funding opportunities. Although a lack of information was more prevalent among rural students, nonetheless only a handful were not aware of university funding requirements. Ndiyafhi (Metro) from Vhembe did not realise he needed to apply for funding and only applied after a family friend told him about the Thusanani Foundation. This made his access path comparatively easier than, for example, for Rudzani and Khuselwa (Metro). Due to a lack of information, they realised the need to pay registration fees only upon enrolment and had to be assisted by the Thusanani Foundation.

About 45 students were informed of university funding requirements by Thusanani representatives who also secured bursaries on their behalf or paid university fees. A few students secured their own funding. For instance, before registration, Tiyani (Metro) applied 'for a lot of bursaries ... any bursary that I would come across I would just apply', while Rito (Metro) called different companies in search of a bursary. They both enrolled after securing funding.

Illustrating the inadequacy of information alone in securing access, a few students such as Buzwe showed its complex intersection with other factors. Buzwe converted teacher and family support, as well as information from Metro representatives, to enrol at an Eastern Cape province university for accounting in 2015, but dropped out because he didn't secure funding. He only enrolled at City after securing Thusanani Foundation funding. Nyiko (City) had limited information about choosing grade 10 subjects to be a chartered accountant or about university processes, although he had different sources of information: his sister was a City social work graduate and his brother had studied quantity surveying at college. In addition, Nyiko's accounting teacher had motivated him to go to university and the school had organised trips to two university open days. Regardless of these information sources, Nyiko 'had no information how to apply, where to apply or when to apply' until Thusanani Foundation applied to City for him. On the other hand, Sonto (City) is first in family; her school did not organise any university visits and teachers discouraged learners from going to university. While she did not know how she was going to get to university, 'all I knew was that I was going there'.

These narratives reveal that students have mixed sources of information. Mostly, they relied on hot knowledge, albeit not always grounded in university experience, while their own agency is significant. Although contact with and information from

universities is crucial, its lack does not limit access by itself. There are several examples of students, such as Sonto (City), who had no contact with universities but still achieved access. However, in cases of limited information from universities, or access to the internet and a lack of support from schools, and sometimes families, students achieve access under these highly challenging opportunity conditions and must exhibit considerable agency to push forward towards their valued goal of university access.

Extended families and significant others

Students' familial support and encounters with significant others emerged as important in shaping access decision-making. We have already seen this in the information factors above. We now explore further the specific influence of the extended family and other significant individuals in enabling or disrupting access and how it intersects with other factors because 'success stories usually acknowledge the involvement of at least one significant person and/or other assets from the immediate environment' (Mampane & Bouwer 2011: 115). In all instances, there was almost always someone who supported a student's educational aspirations through providing information, money (often small sums), and encouragement and advice.

Despite living with parents or guardians who had not themselves completed grade 12, students were generally encouraged to learn and aspire to university even in the absence of funding and, at times, knowledge. Dumisani's (City) parents were Mozambican immigrants who had never been to school. His father prioritised education and told his son: 'If something is for school you need to go [even] if it means that we don't eat inside the house.' In addition to encouragement, several students such as Aphiwe (Provincial), Khuselwa and Ndiyafhi (Metro) had 'strict parents'. Khuselwa and her siblings 'all went to varsity because they [our parents] encouraged us to take our education seriously' and there was 'no going out at night'. A few parents such as Aphiwe's mother did not expect her to contribute to the household chores so she could study. Thus, parent or guardian interventions ensured that students stayed off the streets and in school and understood the value of education. However, sometimes parents' low educational levels influenced students' choice of degree. For example, Khuselwa's parents discouraged her from studying forensic science because they thought she was 'going to work with dead bodies'. She ended up applying for engineering, a field which they understood.

Thirty-four of the 66 students had extended family members who had gone to university, although not all had graduated. As underscored by Phusu (Metro) and Nyiko (City), people who access university 'have at least one member in the family who has succeeded' and 'showed them the way'. Khuselwa (Metro) explained: 'Maybe another family has three sisters and all of them never went to university and they all had kids at a young age, there's a very high probability for the younger one to also do the same thing.' While Dumisani's (City) brother did not go to university, he had visited Metro and would tell him about it, 'and I [Dumisani] could picture it in my mind ... and believe that this is the type of environment that I want to be in'. These examples illustrate Smith's (2011: 165) view that 'sibling transfers of knowledge about higher education can initiate a narrative thread in which choosing to attend university begins to feel more "natural"'. In the absence of parental knowledge, there were usually extended family members to assist. For example, because Tintswalo's (Country) parents 'didn't even know what was university, what was happening there' he relied on his uncle, a teacher, for information and support.

Teachers constituted a substantial proportion of ‘significant others’, with almost all students identifying at least one teacher who had helped them. Support included encouragement, information on universities and funding, application forms and money for application fees, transport and sometimes registration fees. Vukosi (City) recalled a teacher who ‘used to tell us that our background doesn’t determine our future ... So I believe that’s how I was motivated’. Ntando (Provincial) identified his physical science teacher as ‘the best teacher in the world’ who ‘made me the person I am’, while Nombuso’s (City) maths teacher and Tiyani’s (Metro) English teacher were like ‘father figure[s]’. Thulani’s (Provincial) geography teacher helped with the application process, selecting the university and what to study. Lesedi’s (Rural) maths and life science teachers paid ZAR 3 500 towards his registration fee, and his family paid the balance. While fewer than five students, such as Rimisa (Country), lacked family support, they all had supportive teachers. As a first in family, Rimisa ‘felt lonely’ and ‘no one supported [him]’ at home because they did not ‘understand the situation’ and also faced constrained financial circumstances. Therefore, he ‘depended’ on his teachers who encouraged and gave him financial assistance which resulted in him ‘believing in myself’. Overall, Vukosi (City) noted: ‘I had hard working teachers, I guess they are the ones who were pushing me this far, right now I am at university.’

The Thusanani Foundation played a key role in improving access. All 66 students were helped in at least one of the following ways by Thusanani volunteers who visited rural and township schools: providing information on universities; funding opportunities; applying on their behalf to three different universities; deciding at least three programmes to register them for; registering students; and, filling out forms and submitting them. At least 45 of the 66 students were exposed to the Thusanani Foundation while at school, usually in grade 12, and the remaining 21 encountered the foundation after registering at university. Thusanani Foundation was pivotal in overcoming information and money challenges and securing access for most, and continued participation for some. Several students expressed how Thusanani Foundation ‘played a vital role’ in their lives (Bonani, Provincial) such that they ‘made us, took us from nothing to something’ (Malusi, Provincial). Underscoring the importance of Thusanani Foundation (and other such NGOs), five students, including Nyiko (City) and Maki (Metro), indicated that, had it not been for Thusanani Foundation, they would not have thought about going to university.

Thusanani Foundation applied to three universities on students’ behalf and, although students indicated preferred degree programmes, Thusanani sometimes chose different ones where they thought students were more likely to be admitted. While access was achieved and students sometimes grew to ‘love’ these programmes, occasionally they were dissatisfied. For instance, although Nyikiwa (City) had, perhaps unrealistically, selected veterinary science and optometry, Thusanani applied to City for a diploma in logistics. Despite being unaware of what logistics entailed, Nyikiwa now felt that ‘they did me a favour, because I love this course’. Bonani (Provincial) ‘never wanted to [go] to university’, preferring to study at an agricultural college. However, due to a lack of funding, he had enrolled at Provincial with Thusanani’s assistance. Notwithstanding studying BEd, majoring in agricultural science and technology, Bonani was dissatisfied because he was not ‘going that deep into agriculture’. While such students were not enrolled in programmes of their choice, they had accessed university and stood a better chance of securing employment after graduation than those who did not.

Personal conversion factors: Attitudes, values and characteristics

Agency and motivation play a significant role in securing university access for low-income students. Personal dispositions can function to 'close the gap in support from schools and families and the lack of information about higher education or the money to go' (Walker 2020b: 11). Thus, negative influences are mitigated by determined and tenacious student agency. But we also emphasise that agency on its own is not enough to secure access as our analysis of intersecting conversion factors shows: agency is always in interplay with social systems and relationships with others.

To achieve good grades, six of the Miratho students decided to repeat grade 12, sometimes in the face of discouragement. The other 60 students, with the exception of Aphiwe (Provincial), claimed to have worked hard in high school. Most were motivated to work hard to change their individual circumstances, that of their families and, sometimes, their communities. Hence, Asanda (Provincial) commented: 'Our background plays a huge part. It motivates us a lot, because that's motivation from within. That I have to push hard, I have to work hard to change [things] back at home.' Despite adverse circumstances (lacking knowledge, funding and, at times, support), students demonstrated their agency in navigating their way to university. Examples include students opting to repeat grade 12, walking long distances to school, and applying for bursaries and to universities. Mthunzi (City) illustrates this tenacity. He was accepted at City after repeating grade 12. Because he lacked funding, he joined the student representative council which paid his registration fee while simultaneously submitting his documents to the Thusanani Foundation which also assisted him. The need to push themselves was highlighted by Khethiwe (City) from Joe Gqabi where people thought 'no ways, varsity is not for us ... [w]e are coming from a rural background', while he told himself, 'I know I'm going to make it'. Unlike more traditional university students with financial security and family histories of university, some low-income students relied on themselves to forge an access path. Notwithstanding the support of significant people, students indicated the need to take responsibility and 'push yourself individually so that you can be where you want to be in life' (Sonto, City). Most students described themselves in positive terms as hardworking, smart, determined and committed. For them, these qualities were necessary to overcome the challenges of poverty and inequalities and the uneven access terrain.

Thus, despite the challenges, students were determined to access university. For example, regardless of going to a school with a low grade 12 pass rate, Lwazi (Rural) believed that 'if you want to pass you can pass'. Also, despite being first in family, Bongeka (Provincial) already 'knew in [her] heart' that she wanted to go to university, '[e]ven though there was nothing that said you will go to university, in terms of money and all that'. For Asanda (Provincial) it was 'a challenge' – being first to go to high school, university and 'to graduate and to have a proper work'. Such students showed a sense of self-efficacy, understood as the beliefs about our (in)ability to influence events affecting our lives. This determines 'how people feel, think, motivate themselves and behave' (Walker 2019: 55).

Nonetheless, some students had a weaker sense of self-efficacy than others, as was illustrated by Busisiwe (Provincial). She had no plans for university because of 'the situation at home'. She only focused on passing grade 12 and 'did not think what [she was] going to do next.' Only after her aunt 'pushed' her to apply to Provincial and she was accepted, did she begin thinking about how to pay the registration fee 'and I did

not even think if I don't have a bursary, who's going to pay for my fees after that? I was just worried about registration'. This lack of long-term planning was also mentioned by Khethiwe (City) and illustrated by Mthunzi's (City) caution that 'you plan, then things happen the way they want to happen'.

Such sentiments can be attributed to the precarious positions of low-income students which made long-term planning difficult, especially in relation to funding. Given that aspirations can reflect people's measure of control over their future, low-income students tend to have 'a more brittle horizon of aspirations' (Appadurai 2004: 69). Thus, students such as Busisiwe made short-term achievable plans rather than shooting for what appeared to be unachievable long-term goals.

Students' access narratives illustrated the importance of personal dispositions and values in overcoming challenges such as a lack of funding and information, poor schooling, and geography. As Archer (2003) explains, we deliberate about what is possible, in the light of our objective circumstances, and work towards some notion, however imprecise, of the course of action to take to advance our (access) projects. Still, while structural constraints can be circumvented, they are not entirely overcome. Thus, there are degrees of freedom in determining one's course of action and these will vary with the stringency of constraints (such as poverty) and the strength of enablements and relationships. Agency matters, but cannot be the whole story.

Conclusion

Although access to university was achieved, access trajectories varied based on the different combination of unfreedoms the students faced. By examining intersecting factors in enabling and hindering access, the discussion has tried to untangle and trace students' lived experiences, adding to the limited research on how low-income students access university. Access for disadvantaged students is tenuous and negotiated, rather than guaranteed. Whereas some students converted resources available to them into achieving ideal places at the universities of their choosing, opportunities were unequal and others had constrained choices and settled for universities and degrees or diplomas which they qualified for or their resources (e.g. a bursary specific to training as a teacher) allowed them to take up. Although some students eventually accepted and sometimes even grew to enjoy their degrees or diplomas, others remained unhappy with their constrained choice. Further, even though conversion factors affected individuals differently, students' narratives revealed patterns of intersecting multiple inequalities. These inequalities highlight that access to university does not start at the point of applying for admission but begins well before: at school, at home and in communities. Thus, an understanding of students' contexts and how they shape available opportunities helps to identify enabling and constraining conditions in context – material, educational, social and personal.

Students do not arrive at university as blank slates without some capabilities in place or development. In relation to the set we identified in Chapter 4 and with regard to access, we think that the life histories show that students were already strong in the domains of ubuntu and navigation. Epistemic contribution, however, was thin insofar as it related only to passing examinations; students were not yet participants in giving and receiving knowledge, nor recognised as legitimate and credible knowers (which

is not the same as saying they had nothing to offer or brought nothing with them). Emotional balance was compromised by stress and worries, especially about funding. The uncertainties they lived with made it difficult to make long-term plans for a good life (practical reason) beyond getting to university and working hard once there. These were effectively dormant capability possibilities which would depend on conducive higher education experiences and conditions.

Inclusion and participation is harder to evaluate. It is probably fair to say that they mostly felt included in their schooling albeit as junior members with a common language and common ethnicity, but participation was limited pedagogically. Future work/study would depend on how they fared at university and in the labour market: schooling shaped this capability in relation to grade 12 results and school subject choices but, aside from that, this higher education capability was yet to develop. Thus, most capabilities could be described as emergent, waiting in the wings as it were. The next three chapters therefore explore students' experiences of getting on and getting out of university, examining how (and if) they were able to expand their capabilities.

CHAPTER 6

Possibilities for student transformation through capability-enhancing university participation

Moving on from students' experiences of accessing university we now explore their experiences of being at university, and we consider the extent to which university participation was transformative. Research undertaken by McLean et al. (2019) concludes that knowledge acquired at university can change how students see the world and their position in it: this is transformative higher education. Because knowledge is key to transformative higher education, the focus in this chapter is whether the capability domain of epistemic contribution was expanded. We explore whether the students had effective opportunities to gain disciplinary and social knowledge, to be able to reason, and to understand, apply, share, discuss and examine this knowledge critically, alone and with others. In the context of higher education, we found that the capability of epistemic contribution is architectonic, has multiplier effects (Walker 2020a), and is central to the project of decolonisation of expanded epistemic freedoms. As we proceed, we show how epistemic contribution suffuses and is suffused by other capabilities (Walker 2020a).

Our discussion draws on students' comments about their university teaching and learning conditions, arrangements and experiences, summarised in the participation conversion factors tables, and from our thematic analysis of four waves of life-history interview data. We explore how intersecting conversion factors either supported or suppressed the capability domain of epistemic contribution. The chapter is divided into two main parts: the first one focuses on academic participation, and the second on non-academic participation. We conclude by evaluating the extent to which university participation promoted student transformation.

Part 1: Academic participation

We first discuss the conversion factors for academic participation and their intersecting influence on students' engagement in processes of teaching and learning and experience of being at university. This part is divided into four sections: (1) material conversion factors, where we discuss the effects on learning of funding and access to technology;

(2) environmental conversion factors, where we look at the students' overall sense of belonging in terms of whether they live on or off campus and the general conditions at their universities; (3) social conversion factors, where we consider the effects of limited information about how a university works and of experiences of the inequalities of race and gender; and (4) the final, key section, namely educational conversion factors, where we see more directly how students study, how they experience teaching and the extent to which disciplinary and field knowledge changes them.

Material conversion factors and students' engagement in processes of learning

In this section we discuss two conversion factors – funding and access to technology – and how they intersected to affect students' engagement in learning processes.

Funding

In the first year of study (2016) 53 of 66 students had accumulated enough money to submit application forms and pay for registration. Money came from multiple sources including family members, high school teachers and the Thusanani Foundation, while others had registration fee discounts for merit awards. However, the funds were insufficient for the full costs of being at university. Therefore, the students' first year was worryingly precarious. Ntando (Provincial) explained that 'finance stresses us because when your account accumulates they keep sending you messages like "you will be de-registered"'. Like nearly all Miratho students, he felt that 'the stress of money is too much'. Students lived hand-to-mouth, often not knowing whether they would be allowed to complete the semester, or whether landlords would evict them. 'Once the month is about to end the accommodation thing comes back. It takes off your focus, like what's going to happen if I'm going to be chased out?' (Makungu, City). Relevant to the difficulty of successful participation, Akhona (Rural) said constant worry was 'affecting me in the class, because I was always thinking, where am I going to get money to buy this and to do this?'

This situation changed for the group. In contrast to their first year (2016), when most students relied on financial assistance from family members and the Thusanani Foundation, by year three (2018) nearly all had secured funding in the form of government bursaries. In Table 6.1 we summarise the main sources of funding that made the biggest difference in ensuring that students' ongoing university participation was less precarious and in easing their worry.

While acute worry was resolved, even once students had secured funding, they were forced to be strategic and make difficult choices (e.g. either purchasing textbooks or a laptop). They also provided financial support to their family members, taking small portions from their meal allowances or saving larger amounts of money from textbook allowances. Anathi (Provincial) said she 'changed the doors [of the house], bought my mother a washing machine because she's getting old now, she can't wash [laundry] with hands'. Like all Miratho students, Anathi was eager to contribute to improving the living conditions of her family back home. Finally, the funding that students received was not guaranteed for the full duration of their studies. Bursaries offered by private companies are usually limited to a fixed amount and/or period, and bursaries from government (like NSFAS and Funza Lushaka) are contingent on academic performance. Therefore, while securing funding reduced stress, students' time at university was never entirely free from financial worry.

Table 6.1: Students' main sources of funding*

University	NSFAS	NSF	Thusanani Foundation	Funza Lushaka	MerSETA/ EWSETA	Transnet	Eskom	KPMG	Tomorrow Trust	Total
City	11	0	2	0	0	0	0	0	0	13
Country	10	0	0	1	0	0	1	0	0	12
Metro	6	0	0	1	2	2	0	1	1	13
Provincial	12	0	1	2	0	0	0	0	0	15
Rural	3	9	1	0	0	0	0	0	0	13
Total	42	9	4	4	2	2	1	1	1	66

* NSFAS – National Student Financial Aid Scheme; NSF – National Skills Fund [government]; Funza Lushaka – government bursary for teacher education; MerSETA – Manufacturing, Engineering and Related Services Sector Education and Training Authority (SETA); EWSETA – Energy and Water SETA; Transnet – government rail, port and pipelines company; Eskom – government electricity supply company; KPMG – financial management services, private; Tomorrow Trust - NPO.

Access to technology

As discussed in Chapter 5, students generally attended poorly resourced schools and routes to digital literacy before entering university were limited (Kajee & Balfour 2011). Being at university allowed them access to technology for educational purposes, but they were disadvantaged by previous lack of access and experience. Lungile (City) said, 'I was computer illiterate. I didn't know anything about computers'. As for almost all Miratho students, Bonani (Provincial) said 'it was difficult, because it was my first time using the computer lab, the computers, scanners, printers all that stuff and online assessments'.

By the end of the first year, students were accustomed to using computers. However, for students at historically disadvantaged universities like Country and Rural, low digital literacy was compounded by limited access to technology and equipment even after they entered university where accessibility (knowing how to use the technology) compounded the challenges. Akhona (Rural) explained: 'We were not having the personal stethoscope or the personal sphygmomanometer. We were unable to use them when we go to practicals, because we only learned the theory, not having the equipment to practice.'

Another related issue for students across all universities, especially for those who resided off campus, was access to the internet. As Anathi (Provincial) explained: 'You have internet access when you're in school [university], but when you go to home, there's no internet.' Having reliable access to the internet allowed students to conduct research independently and complement what they were learning in lectures by accessing online videos. Ndiyafhi (Metro) said using YouTube allowed her to use her time more efficiently: 'Mechanical engineering, maths, science, it's all on YouTube. Lecturers post their videos on YouTube. Just go watch a video on YouTube, and you'll probably go through a week's lectures in two hours. So it helped a lot.'

Not being able to watch tutorials on YouTube and other online platforms may not seem to be an educational deprivation, but it allows students to diversify their sources

of learning and supplement what they learn in lectures, thus increasing their chances of improving their grasp of disciplinary knowledge.

Miratho students had to type assignments and complete online activities under pressure. As Menzi (Provincial) explained: ‘Without a laptop, you have to push as much as you can until the computer lab closes, you must submit before the computer lab closes.’ However, by their third year of university (2018) most students (47) did have laptops (see Table 6.2) because by then they had secured funding and purchased them (often with their textbook allowances). Nevertheless, 19 did not have a personal laptop by this stage (29%, nearly one-third) which put them at an educational disadvantage: their ability to participate in learning was severely undermined. For low-income students, access to online learning was limited and remained limited if they did not have laptops and/or reliable internet access at their place of residence.

However, we also heard of students using WhatsApp for learning purposes. Maada (Country) said for each of her subjects students had a WhatsApp group. Tintswalo (Country) said one of his lecturers had a WhatsApp group for students to post questions. The use of low-tech platforms that are more accessible to all students is becoming increasingly important in the wake of increased online teaching and learning, prompted by Covid-19 regulations which necessitated the move to remote learning, exacerbating both access and accessibility.

Table 6.2: Total number of students with laptops across universities by third year of study (2018)

University	Number of students with laptop	Number of students without laptop	Total
City	7	6	13
Country	8	4	12
Metro	10	3	13
Provincial	14	1	15
Rural	8	5	13
Total	47	19	66

To conclude, access to and accessibility of technology – especially laptops *and* internet – supported students’ becoming epistemic contributors. They could broaden the informational basis of their disciplinary knowledge by exploring various platforms of information and knowledge that further helped them understand curriculum content. It also allowed them to use university online learning tools to complete and submit assignments from home and supplement lectures with tutorials on YouTube. In this way, the two material conversion factors of funding and access to technology intersected to improve students’ engagement in processes of learning, hence the capability for epistemic contribution. Secure funding also meant that students had less stress and fewer worries as their time at university went on, because they could move closer to campus, buy better food, better clothes, and most of the study material they needed. Having sufficient funding contributed to an improved sense of belonging and peace of mind about being at university which, in turn, supported the capability domain of inclusion and participation as well as emotional balance. In this way we see the social and material effects of material hardship, and can observe the multidimensional nature of dis/advantage.

Environmental conversion factors and students' experiences of university

The conversion factor of geography, in particular the impact of living on or off campus, and general university conditions influenced attendance and a sense of (not) belonging.

Geography: The impacts of living on or off campus

During their time at university, most Miratho students (42) lived off campus (see Table 6.3). While this was not a problem for those who lived within walking distance of campus (five kilometres), it was often problematic for those who lived further away (20 kilometres). A daily commute was most complicated for City students who tended to live further from campus than students at the other universities. They travelled to campus using public transport: mini-bus taxis, university shuttle buses, regular buses or trains, or a combination, for example:

I was travelling using a taxi but it was very expensive so I had to spend about R60 a day. I had to catch three taxis to school and three taxis going back home. But then my father did not have that kind of money to give me ... so I went to a train. I used train to come to school. I used to wake up three o'clock ... going to school without eating anything ... plus I had to travel about three to four hours using the train so it was very difficult. (Siviwe, City)

Sometimes students skipped classes due to insufficient taxi fare:

I have to take local [taxi] from home to City University Township campus, so that I can get a student bus from Township campus to Main campus ... sometimes it's a bit tricky ... sometimes there's no money and you have to decide, okay, I'll go to school this week and next week I'll have to jump some other days. (Nyikiwa, City)

Although this problem was most prominent for City students, there were examples of the same challenge at other universities:

Being able to attend classes this year is quite a difficult thing to do, because I'm staying at home and I haven't yet received my transport allowance so I have to ask people to lend me money, so ... I've missed quite a few classes ... I do miss a lot of group sessions. (Sabelo, Rural)

I did not attend some of the classes because I live in the township. So I sometimes struggle with transport. That's why I failed Criminology, because most of the classes I did not attend. I think I only attended two or three lectures [that semester]. (Bongeka, Provincial)

In contrast, the 24 students residing on campus did not report missing classes. Living far from campus as a low-income student, even with funding, is a barrier to the capability for inclusion and participation. Off-campus residence means spending less time within the university environment, which results in fewer opportunities to be engaged academically and be part of the university community.

Table 6.3: Summary of students living on and off campus

University	On campus	Off campus	Total
City	0	13	13
Country	7	5	12
Metro	9	4	13
Provincial	0	15	15
Rural	8	5	13
Total	24	42	66

General university conditions

General university conditions include location, social and physical environment, facilities, and extra-curricular activities, as well as ethos and reputation. We explore how these factors work together to affect students' experience of university. (Table 6.4 summarises the students' experience in the form of scores.)

At City University, students spoke of good campus facilities and a pleasant environment. Here are Mthunzi's first impressions: 'I was like wow, it's a huge place, many people, the lecture halls are very, very huge.' He said he was 'amazed' by the campus size. And Sonto said: 'Oh, I was happy, I remember I didn't even want to leave campus.' Makungu, too, liked the environment: 'City is good. At my course, the lectures, everything, I feel like for me it's ten out of ten. I enjoy being there, and I enjoy the energy, and I enjoy how they do things.' These positive views are reflected in the average 8 out of 10 scores given by 13 City students (N=13) for overall university experience and for general university conditions.

At Country, students described inadequate facilities and equipment: 'In class there is no projectors, or ... they are not working' (Rimisa). Other factors made their experience of the campus environment uncomfortable. Konanani said the campus was not safe because there were frequent break-ins and theft. Khathu found it difficult to study in her on-campus residence where she was 'squatting' with two other students. Thendo spoke of corruption in the university and the inadequacy of service provision and resources. Tintswalo thought lecture halls were overcrowded and that lecturers did not know how to use ICT for teaching. Rimisa said he had heard that, 'the biggest companies here in South Africa, they are saying they don't employ a student from Country University because they [graduates] don't have knowledge', indicating that the university's reputation might have a negative impact on Country graduates' employment prospects. On average the Country students (N=12) rated their overall university experience at 7 and general university conditions at 6.

Students at Metro were impressed by their campus. Ntondeni said: 'It's big. It's beautiful.' She was 'amazed by the buildings' and 'surprised, getting to see different people'. Similarly, Rudzani was surprised by the racial diversity on campus: 'Oh there are white people. I never thought I will be in the same place, you know because like where we come from you don't ... You can't say you went to the same school with white people, there are no white people.' Rudzani had not imagined he'd 'be attending [lectures] in these tall buildings which look so nice'. Students scored their general university conditions an 8 out of 10. Yet, they complained more than students at City,

Country, Provincial and Rural about the university's lack of care for student well-being. For example, Rudzani would have scored 8, 'if only they listen[ed] to people, because there are many things which happen here which affects everyone and they don't seem to care much about it'. About lecturers, Tiyani said: '95%, 98%, they just don't care.' Metro students (N=12) scored their overall university experience at 7.

At Provincial, students were impressed by the size of the campus and the general facilities. Thulani said: 'The university is huge, but it's nice. But yoh, walking from the main gate to the education building, it's like walking the village. It's like walking in my village from my home to school. It's very huge.' Kamohelo was 'shocked at how big this place is'. Bongeka said she was 'taken away by the beauty' of the campus. Asanda said seeing the campus for the first time was 'quite amazing'. The security features, such as the whole university being fenced and accessible only to staff or student card holders, made students feel safe on campus. Provincial students (N=15) scored their overall university experience and general university conditions a 7.

Rural University students spoke of inadequate infrastructure and ICT arrangements. As Samkelo explained: 'You go to the study centre to access that file and you find out there's no internet connection because [Wi-Fi] is very poor.' Akhona said the 'resources, the infrastructure, the furniture' at Rural were 'not conducive'. Aviwe thought it a good university, but with bad management. Lesedi was 'disappointed' to find that Rural is 'small', the residences are 'poor' and students 'always go on strike'. Thapelo said Rural is 'not perfect, I know, but it's not as bad as people talk about it', which indicates he is aware of the perceptions held by the public about the quality of the institution. Thapelo also said Rural is particularly bad, 'if you compare [it] with City University, yes, it's bad'. Rural students (N=12) on average scored the general university conditions at 5, and their overall experience at university a 6.

Table 6.4: Average scores for general university conditions and university experience

University	Average score out of 10: general university conditions	Average score out of 10: university experience
City	8	8
Country	6	7
Metro	8	7
Provincial	7	7
Rural	5	6

In sum, the 41 students enrolled at City, Metro and Provincial gave more favourable reviews about the general conditions of their university campuses, while the 25 students enrolled at Rural and Country often expressed disappointment with the environment which affects teaching and learning. The data remind us that the legacies of inequality and ill-distribution of resources across historically advantaged (e.g. Metro University) and historically disadvantaged (e.g. Rural University) higher education institutions are manifest in the physical spaces of universities.

However, in historically advantaged institutions like Metro an atmosphere in which students experience the institution unconcerned with their well-being decreases the value of good facilities. Such an environment affects students' sense of belonging in

negative ways, which, in turn, impedes their disposition to be active, visible members of university who feel valued. Again, the capability for inclusion and participation is diminished, as is the capability for ubuntu.

Social conversion factors and students' experiences of being at university

Information and support about being at university; race, gender and other inequalities intersected during their time at university to influence how students navigated the university system and their feeling of being part of an academic community.

Information and support for being at university

When they first arrived, students did not know what to expect: 'What will the university be like? What will learning be like? What will it mean to be a university student?' (caption for first photograph in the Miratho photobook²⁴). The support received from family members was mainly emotional and moral. As Kamohelo (Provincial) explained about his aunt and uncle: 'I know if I'm stressed or if there's anything that puts me down, I know who to call. I know they're my support system.'

However, students' expectations of ongoing academic advice and practical guidance about being at university from the Thusanani Foundation were not met. So Miratho students had limited knowledge of the culture and structure of university learning. It was extremely difficult for them to find out what they needed to adapt to university life. Some students attributed their lack of classroom participation to their rural background and a lack of familiarity with urban academic culture. As Nyikiwa (Metro) said: 'It's all new here, yes. So you can see that students who are around here in Jo'burg, they are used to these things. So it's simple for them to ask questions, even in class.' This is how Dumisani (Metro) put it in a caption for a photovoice book:

A bird of different feathers: The human anatomy is designed to adapt into new places. I found myself trying to fit in, in a different place where everything looked, felt and was different. I was a bird with different feathers. An albatross flying with eagles. I felt like that because after some time I found myself forced to 'adapt or die'. All the rules of natural selection were against me to a point where I felt I was not evolving at all.

In an alien environment and culture, students need not only adequate resources, but also knowledge and information to make the complex process of becoming a 'full' member of university easier for them. Opportunity (e.g. a mentoring system) is needed for the capability of navigation – the ability to traverse university systems well enough for university participation to be understood and enacted.

Race, gender and other inequalities

Other inequalities affect students' sense of belonging and success at university. Income disparity is linked to social class, which often operates as a barrier to black, low-income students (Calitz 2018b). Even at universities like Country, where household income disparity between students is likely to be less than at institutions like Metro, students distinguished differences in socio-economic class through, for example, English

24 The students who participated in the photovoice project compiled one Common photobook, drawing from their individual photo stories. See https://www.ufs.ac.za/docs/librariesprovider64/miratho-projects/photovoice-project/miratho-common-photobook.pdf?sfvrsn=fa4f9f21_2&kovsieapp=true

language proficiency, ease of use of computers, or type of clothing worn. As Rimisa (Country) explained: 'I mean from the clothes they wear, what they eat, like what materials they have, from how they use computers at the library, yes how they speak, I can tell that this one is from a good family or this one is not disadvantaged.'

Race inequality was also experienced. At Provincial, students mentioned disparities in relation to language use during lectures, a problem unknown to some of the Miratho students prior to their experiences at dual-medium universities offering classes in English and Afrikaans. Lecturers' use of Afrikaans during class limited opportunities for non-Afrikaans-speaking students (who are mainly black) to engage in discussions. Anathi (Provincial) said:

There are some things that keep on triggering me here in university, because I feel like they are still not fair ... if there is an Afrikaner child in that class, if he asks a question, like he would speak in Afrikaans, and then the lecturer would also reply in Afrikaans.

Anathi also described experiencing micro-aggression from a teaching assistant:

My English teaching assistant ... is more friendly to those white girls, she explains to them. Whenever it's a black child, if me, I'm going to ask a question and stuff, you will see her facial expression, like she's bored or she doesn't want to answer me. But then if it's those white girls, they would laugh, they would do those things, and she would answer them.

Only 19 students of the 60 students interviewed in 2019 explicitly mention that inequalities other than income had an impact on their university participation: race is mentioned ten times, gender four times, ethnicity twice, and socio-economic class once. However, this is not to say that these are unimportant. Indeed, that they were mentioned by some students suggests the need to pay careful attention to these structures and opportunity conditions for meaningful learning. Racial and gender discrimination in the form of micro-aggressions such as the one described above tend to be established as normal behaviour within organisations, becoming so ingrained that they can be hard to discern.

In conclusion, the social conversion factor of support from others kept Miratho students focused on their studies and helped to ease their worries, thus enabling the capability for emotional balance. Yet, this peer support did not translate into navigation capability – there was not enough information and advice about 'how things work' at university. Although not as negative as the impact caused by intersecting material conversion factors, the discrimination students experienced made it difficult for them to feel like members of an academic community. The intersection of social conversion factors generally impeded the capability domains of navigation, inclusion and participation, and therefore epistemic contribution, especially in the first year. As time progressed, this was mitigated by students' determination to succeed and their being undeterred by inequalities that limited their overall experience of being at university, in short, their agency.

Educational conversion factors

Finally, we come to educational conversion factors which directly relate to the expansion of epistemic contribution. First we examine the two conversion factors, personal

educational factors, and teaching and learning arrangements. Then we conclude with academic participation by exploring the evidence for student transformation.

Personal educational factors

Students brought three things to their studies which were both effects of secondary school and of personal qualities they had developed before university: language, confidence, and approach to learning.

Language and confidence: Most low-income students who attend fee-free public schools in South Africa take English First Additional Language (FAL) in high school, not English First or Home Language (HL). English HL is designed for learners whose mother-tongue is English, or for students whose English language competence is on a par with mother-tongue speakers (Umalusi 2014). In contrast, English FAL is designed for learners who are less proficient in English, or whose exposure to the language in their home and their school settings is limited (Umalusi 2014). Moreover, a large proportion of English FAL teachers themselves come from low-quality formal learning backgrounds, and many lack the requisite content knowledge and deep awareness of methodology to teach English effectively (Umalusi 2014). This situation was echoed by students: ‘In my high school the teachers were not that much good in English’ (Bonani, Provincial) and ‘even the English class was [taught] in Xhosa’ (Aviwe, Rural). We asked students for their grade 12 certificates and 34 of 66 sent them. Table 6.4 summarises the information we have about these students: only one student took English HL.

We understand the dominance of English in universities as a decolonisation issue. A lack of familiarity with English partly explains why students were not confident in class. While all students reported attending classes and tutorials regularly, many struggled in silence during the first years of university because they lacked confidence not only in speaking English, but also in speaking up. Rimisa (Country) said he did not feel confident to speak in class because his ‘English language was poor’; Ntando (Provincial) ‘just did not get along with English’; Busisiwe (Provincial) ‘did not know the language that much’. Nyikiwa (City) explained that ‘here at university we don’t use our language, we speak in English, so my first year it was difficult to communicate with lecturers’. Yet, even those students who had a good command of English did not engage in lecture discussions. Kamohelo (Provincial) who had studied English HL in high school said ‘sometimes I’d really have this burning question in my chest but I wouldn’t ask it’. Sonto (City) who spoke English well said she’d ‘never said a word’ during lectures. A general lack of confidence to speak up in lectures was a barrier to students’ meaningful engagement in processes of learning, exacerbated by unfamiliar pedagogies.

Table 6.5: Students’ school language studies based on 34 grade 12 certificates

University	IsiXhosa HL	IsiZulu HL	Xitsonga HL	Tshivenda HL	Sepedi HL	English HL	Total
City	2	1	3	0	0	0	6
Country	0	0	0	9	0	0	9
Metro	0	0	1	4	1	0	6
Provincial	6	2	1	0	0	1	10
Rural	3	0	0	0	0	0	3
Total	11	3	5	13	1	1	34

Nonetheless, as the years progressed, students grew more confident in their use of English, and more confident in themselves. Rimisa (Country) said:

At some point [I used] my home language. So my friend used to say 'No don't do that. If you do that, you will not learn how to speak'. So now, because I'm now a bit good at English, I'm now able to ask questions, yes. I'm also confident to raise up and ask questions.

Bonani (Provincial) said he had gained confidence from being involved in different spheres of university life and that, 'if you don't have confidence it will be difficult for you to ask questions, but if you have confidence it will be easy for you to ask questions and engage with the lecture'.

Confidence to speak is basic to the capability of epistemic contribution. Lack of confidence is understandable for students whose second language is English, who are unfamiliar with the workings of universities and, like all students, must meet and make relationships with a raft of new people.

Approaches to learning: Students carried problematic approaches to learning from high school to university. As Pym (2013) argues, studying in higher education involves the challenge of taking on a new identity as a university student. Miratho students struggled. They had achieved good to excellent grades for their grade 12 exams so they assumed they should carry on as they had done in high school and achieve similar results at university. We heard examples of rote learning techniques and a narrow focus on long hours of 'cramming' content that might appear in tests or exams: 'I was passing, but by using cramming methods' (Rimisa, Country); 'I don't study, I just cram' (Busisiwe, Provincial); 'I will just cram everything there and read and cram everything, maybe two times, cram and cram and cram' (Rendani, Country).

Yet university required students to take on new ways of learning and to unlearn pre-existing ways. This takes time, schooling norms are internalised and generate what Xie and Reay (2020: 26) refer to as limited 'repertoires of possible actions' (also see Reay 2004). Moreover, students mostly associated with others like themselves who could not offer alternatives. In such cases, students need lecturers to intervene and explain to them why their approach needs to change. Lungile (City) told us:

I remember last year they called me for a meeting to find out what was happening, because I wasn't performing well. And we sat down, and they did show me a way: if you're struggling, you have to change your strategies on how you study in order to make you understand your work. Sometimes it's not all about sitting on a chair and looking at a book, looking at a theory. You also have to apply it in your mind in order to understand it more.

It is necessary for low-income (and especially) first-in-family youth to develop alternative learning habits to those established in high school to allow them to develop appropriate identities as university students and adopt appropriate dispositions towards university education (Webb 2019). For the Miratho students, going to university was largely influenced by desires to uplift their families and overcome the spatial and socio-economic fixity of their rural villages or urban townships. These aspirations were supported by their agency towards the goal of getting a degree or diploma, and personal

attributes of hard work and determination which mitigated the problems of unfamiliarity and unpreparedness. Most reported studying for astonishingly long hours – between five and eight hours daily: ‘I have seen that for everything I need, I have to work hard, very much hard, to get it’ (Maada, Country). They learned that ‘university requires you, as a person, to work hard, to focus no matter what’ (Aphiwe, Provincial). They also learned that ‘discipline counts. You need to be very, very disciplined’ (Dumisani, City).

Most of the Miratho students did not use their time on campus for anything else other than their academic work. For instance, Siviwe (City) explained how he ‘did not enjoy the three years I did at varsity. Because I was always having challenges all the time. What I did was study, study, study, and work hard until I finished my degree’. Therefore, for students like Siviwe, and many in the Miratho group, the development of a strong academic disposition came at the cost of extra-curricular pursuits.

While being determined and persistent under challenging circumstances is necessary for successful participation, it can lead to a narrow focus on passing tests and exams and getting the degree. Still, many students also became more proactive and more critical in their approaches to learning. Maada (Country) came to realise: ‘I don’t have to rely only on the notes provided by the lecturer. I also have to do research on my own.’ They used WhatsApp and YouTube for improving their learning, while some learned to approach exam questions strategically. For instance, Aluwani (Country) said he would start with the questions he is most confident about and tackle the tricky ones last. When preparing for exams, they not only studied on their own, but also had group study sessions that could last for up to six hours ‘because your mind won’t easily get tired’ (Aluwani).

Overall, personal educational conversion factors of language, confidence, approaches to study, determination and hard work were all difficult to convert into opportunities and freedoms for epistemic contribution, or to move beyond curriculum as content covered rather than quality learning.

University teaching and learning arrangements

Miratho students’ descriptions of teaching and learning arrangements were quite homogenous in the sense that they reflect what is reported in literature, namely a reliance on the lecture model as the primary structure to promote learning with little encouragement to actively participate (Pym 2013). Nevertheless, there was variation in pedagogical experience too, which did not necessarily tally with university reputation. To take the five students whose life histories are told in detail in Chapter 8: while Mashudu (Metro), Sonto (City) and Aphiwe (Provincial) had largely negative experiences, Siviwe (Rural) and Rimisa (Country) had largely positive experiences.

The most common description of lecturing was that of Dumisani (City) who said: ‘Typical class is basically you get the breakdown of what you’ll be learning about, the learning outcomes, and then you’re given a task.’ In describing lecturers’ teaching practices, Ntando (Provincial) said lecturers gave ‘speeches’ accompanied by PowerPoint slides. Konanani (Country) said ‘there’s no spoon-feeding’ because lecturers only give students ‘skeletons then you’ll have to find the body for yourself’. Khuselwa (Metro) said lecturers did not explain things well and discouraged long questions in class because they see it as taking up class time. While we mostly heard examples of ‘content covered’ transmission teaching, with lecturers speaking to PowerPoint slides, there were a few examples of other teaching approaches. For instance, Akhona (Rural)

said some lecturers used problem-based learning: 'We come with scenarios, we discuss them, that's how they teach.'

In relation to what constitutes good or bad teaching, it is important to note that for the most part, students do not have experiences at other universities, which they can compare to their own university. Thabelo (Country) described good lecturers as those who show up, lecture, give notes, highlight topics that might appear in the exam, and task students with finding out more about these topics. For Aluwani (Country) a good lecturer can be strict (e.g. penalising spelling mistakes) as long as they help students understand their mistakes and explain what they should do differently. Olwethu (Rural) said good lecturers teach at a slow pace and give extra tutorials to help students understand the content well enough for them to be able to explain the content using their own examples. Madoda (Rural) felt that most of his lecturers cared about student success and were supportive and willing to help. They encouraged participation and students to go for consultations. For Madoda a good lecturer also emails PowerPoint slides to students ahead of class and communicates via email and WiseUp (a university online communication tool), but also WhatsApp.

Neliswa (Rural) said many (not all) lecturers did not explain things clearly, skipped classes, rushed or skipped over chapters of the textbook, and did not give feedback on student progress. Thabelo (Country) complained about lecturers who tell students to 'study on your own'. Nelisiwe (City) said bad lecturers are those who just 'read the slide as it is. They are not explaining anything. They're not making examples'. Tiyani (Metro) thought most lecturers simply did not care about students' learning: 'If you go for a consultation, they just say they covered it in class.'

Class schedules and the balance of teaching modes differed according to study programme and year of study or university attended. Most had a combination of more than two lectures, seminars, tutorials and practical work. Not all degree programmes included tutorials. Neliswa (Rural) said in her marketing courses there were no tutorials, but there was group work and group presentations during class. Students mostly described class timetables that seemed manageable, but Malusi (Provincial) thought his LLB programme consisted of an overcrowded curriculum, while Bonani (Provincial) said classes in his BEd programme were badly organised so that there were clashes in his timetable.

Assessment methods differed, depending on field of study, and included: continuous assessment, practicals, projects, individual and group presentations, end-of-module and -course written and oral examinations, online quizzes, and class/semester tests. However, it was typical for students to receive very little or no formative feedback on assessed work. For example, Ntondeni (Metro) said for most of her assignments she received a grade, but no comments or feedback, so students assumed that some lecturers 'just randomly give the marks without checking the assignment'. Ntando (Provincial) said lecturers did not ask questions like: 'Why are you guys getting low marks?' or 'What can we do [to help]?' He said they 'don't interact with us in that way'.

In contrast, Zanele (Provincial) said his lecturers gave helpful feedback on tests. While large classes can make formative feedback for each student less achievable, students need the opportunity to construct their own knowledge and meaning, create varied learning structures, and opportunities to be challenged and to learn from their mistakes. New teaching and assessment models develop a reflective capacity in students

and allow them to be careful observers of their own learning. This means creating multiple moments for students to think about what they have learned, how they have learned it, what their most urgent and compelling questions are and how this knowledge changed them. It also means changing the nature of relationships between lecturers and students, the quality of which is highly important to meaningful student learning (McLean et al. 2019).

The Miratho students were uncertain about what to expect from a lecturer or what the student-lecturer relationship should look like because they did not have a network of people to advise them on how to approach lecturers, on the roles and responsibilities of lecturers, and on how to seek out academic support at university. Accounts were largely of distant relationships with lecturers, with the occasional mention of more positive interactions. Across disciplines and institutions, students seldom consulted lecturers out of class. The reasons for not approaching lecturers for assistance varied. Mthunzi (City) did not know how he would initiate conversations: 'Sometimes it's scary, you know? Scary. Because you don't know what you're going to say. Sometimes you feel like the question you have is too ... like, that's just the dumbest question.' Anathi (Provincial) preferred to ask fellow students and teaching assistants for help: 'Sometimes I feel like I am struggling with talking with lecturers, yes. So I don't go, I normally don't even go to them to consult them. I prefer consulting a student or maybe a teaching assistant.' Malusi (Provincial) said 'me and lecturer [are] strangers'. Malusi did not assume, as advantaged students might, that meeting lecturers to discuss his academic progress was an expected part of university education (e.g. see Stanton-Salazar 1997). So, for Malusi, 'going to their offices is basically not something I considered as part of their job'. He was aware that lecturers had consulting hours but wondered, 'what am I going to consult with the lecturer?' Similarly, Menzi (Provincial) explained that he felt 'as if I'm nagging or something'. Therefore, in the first year of university, like most Miratho students, he 'never went for consultation, never went to lecturers' offices, never wrote an email to a lecturer'. He was 'just an isolated student'. In contrast, and unusually, Ndiyafhi (Metro) said the lecturers in the school of mining have tight-knit relationships with students with mentoring to discuss challenges students are facing. Nyikiwa (City) said her relationship with lecturers was good because 'they are friendly, we share jokes, we laugh, something like that, yes. So, it's easy to go to them if you don't understand, you know they are going to help'.

Over time, some students became less reticent. They realised that they had to 'associate' themselves with lecturers, as Rimisa (Country) put it: 'When they are free ... go there to the office and spend some time asking questions, discussing something' so that one gains 'more knowledge' but also 'creates good relationships with them.' In contrast, students like Sakhile (Rural) who described themselves as shy, limited this kind of engagement with lecturers: 'I don't really communicate with them, I only communicate with the ones that are close to me. I only greet them, when we see each other.' Students were aware that participating in class would make them more recognisable to their lecturers, as Nyikiwa (City) said: 'Obviously those who participate more will be in the higher level than me. Like the lecturers will know them better.'

On the whole, it appears that lecturers did not 'know' their students. Lecturers generally did not engage with students in a way that would allow them to gather knowledge about students' socio-economic backgrounds, their troubles with access to technology, their prior education, opinions or thoughts on subject knowledge, or their

struggles to speak up – all issues that have a bearing on learning. Understanding where students are in terms of their life experiences, worldviews, and their existing knowledge, can inspire lecturers to teach in ways that are meaningful by creating an environment in which students and lecturers converse, share experiences, and foster relationships that make for engaged and transformative learning (Goodman 2015). Importantly, a renewed look at relational practices in online teaching and remote learning brought on by the Covid-19 pandemic is needed, as well as face-to-face relational encounters between lecturers and students to foster transformative learning.

Overall, the pedagogical experiences of students were not predictive of functioning as an epistemic contributor. Their lack of confidence in speaking English and general lack of confidence to speak to lecturers disconnected them from the academic environment and hindered classroom engagement. This made it difficult for them to develop an academic voice and made them cultural outsiders in the university, interfering with the capability for inclusion and participation.

From the third year at university onwards, these effects became less evident, which we attribute largely to students' agency, hard work and determination to succeed. However, during class, lecturers did not always provide clear explanations, nor did they always provide feedback on work. In addition, students seldom had meaningful interactions with advisors and lecturers, such as discussing subject material, academic performance or career plans outside class. For these reasons, transformational relations to knowledge occurred rather unevenly. This is likely because teaching and learning arrangements at all five universities are too heavily reliant on lecturing as a pedagogical tool, with limited formative feedback and distant relationships between lecturers and students.

Evidence of transformative learning

Nevertheless, transformative learning did occur in different ways and to varying degrees for the Miratho students. For example, Tintswalo (Country) said from his BEd degree he gained a broader understanding of what teaching entails: involving all learners, using 'different strategies' to achieve this, encouraging learners to think, and giving them a chance to speak in class, as opposed to answering all questions for them:

If the learner asks you a question, you don't have to first answer the question as a teacher because you know the answer. You must first bounce back the answer to the learners, to hear other learners. Because there must be a learner that is wiser at school. So, you must first hear their view and from there, you can answer the question.

Similarly, from his BSc Statistics and Economics courses, Aluwani (Country) developed a broader understanding about his future profession. He said he learned how the South African economy works, what happens in the Johannesburg Stock Exchange, the effects on society of increases in the inflation rate, and the importance of investing money (instead of always spending everything one has):

Economics can open your mind. I love economics, it helped me a lot. Before in my first year I felt like I'm going to work in Statistics South Africa. And that was wrong because I can work anywhere. I can work in department of education, department

of health, any department, including Reserve Bank. I can work in a lot of places, everywhere.

Another example of this kind of transformation is evident in Rudzani (Metro) who said he became more open-minded, more interested in daily news, politics and current affairs despite these 'not [being] in line' with his discipline, computer science:

Now I think a lot and I try to see what's happening like in the world. In first year I didn't really care much about politics but now I try to look at what are the problems in the society ... I try to follow these politics and whatever which is happening in the world [to see] what are the problems? What does our future look like?

So there was evidence of students gaining a new or more nuanced understanding of their professions, but little in regard to how this changed the way they see themselves in the world as shaped by the knowledge that underlies their respective disciplines. While it was possible to attribute some changes to academic participation, in some instances it was more difficult to say what exactly about their university experience had spurred the change. At times, this was because many responses about the question of change caused by university learning were implicit. For example, Maki (Metro) explained how her going to university resulted in a change that made it difficult for her to relate to her peers back home: 'I feel like we don't speak the same language anymore. I don't know, but, well our language is not the same anymore.' But Rudzani wondered about his community: 'What are the problems? What does our future look like?'

In some cases, we heard how students had gained knowledge that had shifted their beliefs or sensitised them to the plight of those in positions of disadvantage. For example, Akhona changed his beliefs about mental illness through his BCur (nursing) studies: 'I didn't believe that there are people who are mentally ill, you see. I was surprised in my first year that people are not okay mentally.' Busisiwe (Provincial) enjoyed learning Sign Language in her BEd studies and said that it had sensitised her to people with disabilities. Akhona had the opportunity to reflect on and challenge his own and other people's assumptions about occupational gender roles. During his practical training, he found himself working in a clinic with no male nurses. He was also the only nurse on duty with midwifery training. At first the female nurses and patients did not trust that he was capable of doing a good job with antenatal care because he was a man: 'So, they were saying that "no, you cannot do that with a male. We want a female nurse". But now they see that I know what I'm doing. So now they are able to come to me.' Bongeka's (Provincial) BSocSc studies changed how she thought about criminal behaviour: 'What I understand now is that sometimes the environment people grow up in, makes them, makes them to commit crime.' In this way, her university education allowed her to 'see the bigger picture' and 'see things not just as black and white'.

There are also examples of how students were learning about the multi-dimensionality of concepts, about their purposes, their uses and the use of theory in different contexts. For example, Sabelo (Rural) learned from his social work studies how to apply social theory critically in the module, Indigenisation of Social Work. Students learned about the importance of applying 'theories from the West' but 'indigenising them' to 'put them in an African context'. He provided this example:

We had theories that when you are talking with a child, the child must look at you in the eyes, maintain eye contact. And then with the African context, most African children are taught that if they are speaking with the elders, they must not look straight in the eyes. Because if the child does that, it shows some level of disrespect. Do you understand? With that module, it taught me that what I've learned from a Western theory, it's not totally relevant when it comes to African societies. I have to revise. I have to make an exception. If I'm dealing with an African person using a Western theory, I must make sure that they are in the same level, if you understand.

In his BA Linguistics programme Dumisani (City) learned about the complexities of language and its uses in different contexts: 'How in social contexts, certain cultures interact with each other through language; how language displays power; how they use language to show power in politics.' Similarly, Sonto (City) learned from her BA Politics degree how seemingly unconnected concepts and subjects were intertwined: 'You find feminism in politics, you find feminism in sociology.' Making these connections allowed her to see the world differently: 'There was this time where we did religion. For me I feel like religion is also some form of governance over people, like I said before. I think that's how it fits into politics.' Sociology fulfilled Sonto's curiosity to understand human beings better 'not psychologically' she said 'but how life is structured for human beings'. Sonto also learned about feminist movements and now (hesitantly) thinks of herself as a feminist.

As outlined earlier, the experience of university education should be accompanied by a reconstruction of students' selfhood (Ashwin 2020). That is, students should be transformed by university education through developing new ways of understanding bodies of knowledge and how these bodies of knowledge construct the world, as well as students' positions in this complex landscape (Ashwin 2020). This involves fostering students' ontological imagination (Kincheloe 2008) of what they might become as individuals and what they can achieve as a collective. Discussions on transformative learning framed solely around the cognitive transformation/s of individuals do not fully theorise the relationship between intellectual transformation and social action or agency, especially in relation to collective action (Lotz-Sisitka et al. 2015). The capability approach reminds us that transformative learning, including the beings and doings that students value, is a dimension of human flourishing or freedom and, as such, an end in itself (Lotz-Sisitka et al. 2015). From an ethical point of view, approaching transformative learning as a capability and functioning underscores the moral significance of learning (Lotz-Sisitka et al. 2015). Therefore, if transformative learning can reasonably be defended as a kind of capability and functioning – a valued freedom – then higher education institutions have an obligation to disseminate learning resources and create better conditions of possibility for transformative learning to occur (Lotz-Sisitka et al. 2015).

While the examples discussed in this section might be some distance away from the transformation described by Ashwin (2020), they offer hope that change is happening at a perhaps thinner end of transformation, albeit uneven. We attribute unevenness in the extent to which knowledge transforms students (in part) to how the material and educational conversion factors discussed in this chapter intersect to enable the enhancement of some capabilities, while they limit the enhancement of others.

Part 2: Non-academic participation

Personal conversion factors and students' engagement in extra-curricular activities

We now sketch students' non-academic university participation because it too relates to being a teller and knower in society. We show the influence of one conversion factor, namely their personal attitudes, values and characteristics. We first discuss the students' general disposition towards university study, followed by their involvement in the Miratho Project, then their participation in #FeesMustFall and #RhodesMustFall protests, then a brief discussion of their involvement in student associations on campus. The affected capability domains are pointed out at the end of the section before we move on to conclude.

Involvement in the Miratho Project

Sixty-six students volunteered to participate in the Miratho Project and sustained their participation because they saw value in talking about their lives, reflecting on their aspirations, and thinking about the influences of university education on themselves and their families.

As mentioned in Chapter 1, 19 of these students volunteered for the photovoice project. In addition to creating individual photo stories and a collective story about their experiences of inclusion and exclusion at university, students also drafted a charter for an inclusive university, drawing on their own experiences. The charter presents five key points to make universities more inclusive through changes in: (1) outreach and access, (2) student welfare, (3) inclusive teaching, (4) access to ICT, and (5) teaching spaces.

Through the photovoice process and the public exhibition of students' university stories, students were recognised, and they recognised themselves, as legitimate producers of higher education knowledge (Walker & Mathebula 2020). Knowledge was based on their experiences, understanding, lessons learned, and narratives about exclusions and inclusions at university. This involvement in participatory research has the potential to develop students' political disposition and agency.

Solidarity in and support of #FeesMustFall protests

Nearly all students (56) were supporters of the #FeesMustFall protests in that they agreed that university education was too expensive for low-income students like themselves. For most students (41) their support of the protests was in principle only; only 15 joined marches to show their solidarity. Of those not involved, some complained that the protests were disruptive to their learning, while others complained about the damage to university buildings, or about not feeling safe on campus when protesters coerced unwilling students to join rallies. Other complaints were about campus shutdowns, postponed lectures and the time students had to prepare for exams after campuses reopened. Only four students were non-supporters because they thought free higher education would generate a student culture of entitlement, or reduce the value and quality of a university degree. Another five students were ambivalent about the protests, agreeing with the cause, but seeing protests as a waste of time (see Table 6.6).

Table 6.6: Student involvement in #FeesMustFall protests

University	Active participants	Supporters in principle only	Non-supporters	Ambivalent bystanders	Total
City	1	10	2	0	13
Country	1	9	1	1	12
Metro	7	6	0	0	13
Provincial	2	9	0	4	15
Rural	4	7	2	0	13
Total	15	41	5	5	66

Silence and indifference on #RhodesMustFall protests

Students were not well informed or uninterested in #RhodesMustFall protests. Zanele (Provincial) said, 'I'm not sure why they're saying Rhodes must fall. I don't see that as an issue'. Students who did know more about these protests thought they were not important. Sonto (City) explained:

It doesn't matter to me if the statue's there or not, what matters to me is academic excellence, [people] want confirmation to say that this is my country, this is the land of my ancestors so therefore I don't want this here, this person did 1, 2, 3, 4 to us. I don't think that's going to help us progress in any way, so I'm not interested in that one.

It is likely that students' disinterest in #RhodesMustFall was caused by the fact that the matter of unaffordable tuition fees was a more immediate concern, because this had a direct impact on their opportunities to access and participate in university, while the impact of coloniality in shaping the knowledge that universities produce was less obvious to them. We do nonetheless have some evidence of student awareness of and concerns about West-centric knowledge (re)production where it directly affected their field of study.

Involvement in campus politics and student associations

As we have shown, the students directed most of their time towards academic participation. While they engaged in a variety of leisure activities with friends when they were off campus, most did not engage in non-academic activities on campus. There were, however, some exceptions. Thendo (Country) joined the South African Students Congress (SASCO) when he started university and stood as its representative for the SRC. He was chairperson for the standing committee of housing on the SRC, responsible for accommodation on and off campus. Tiyani (Metro) was a member of a Metro campus residence committee, where he was responsible for representing student demands, complaints, queries, etc., about the residence itself to university management (e.g. dining facilities, and wider campus issues like teaching, administration, fees, etc.). He said members of the committee worked closely alongside the Metro SRC members in initiating the #FeesMustFall protests in 2016. Bonani (Provincial) joined the

executive committee of the SRC in his third year at university. He worked in the student commuter office, supporting off-campus students mainly with finding accommodation and integrating them into university life. Aluwani (Country) tutored Maths Foundation to first-year students during his final year.

To conclude, most students supported the #FeesMustFall protests in principle, even though only a few joined marches to show their solidarity. From this, and from their involvement in the Miratho Project and in photovoice, we see that students value political voice and that they 'just want to be heard and be recognised' (Ntsako, Metro). However, they were generally not part of organising or managing protest campaigns or other campus activities related to collective action. They were concerned about decolonisation as it historically shaped their material conditions.

Conclusion: Conversion factors for university participation

With regard to both academic and non-academic participation, the environment, structure and organisation of universities work against low-income students (Crozier & Reay 2011). Material, educational, environmental, social and personal conversion factors influenced Miratho students' university participation, allowing some degree of transformative learning but also producing opportunity obstacles as well. Effective university participation requires intersecting factors to be converted to freedoms and opportunities in the architectonic domain of epistemic contribution (which should guide the processes and outcomes of transformative higher education) and in contributing to all capability domains (ubuntu, practical reason, navigation, narrative, emotional balance, and inclusion and participation). The instrumental capability for future work or study which is shaped in large part by their degree study and other activities will be discussed in the next chapter.

Summary of findings about capabilities for participation

Material conversion factors: Having a reliable source of sufficient funding was necessary but not sufficient for participation in transformative learning. This allowed the students to be participating university members offering the capability domain of inclusion and participation. Money also enabled the capability domain of emotional balance because students' stress was reduced once they secured funding. Intersecting with funding, access to technology directly enabled the capability domain of epistemic contribution because being at university opened possibilities for all students to use science laboratories, technical equipment, computers and the internet for educational purposes. Their digital and technological literacy improved and they felt included in academic activity. For instance, the 47 students who managed to purchase laptops had more opportunities to further develop and apply their digital literacy than the 19 who throughout their time at university had access to a computer and internet only when they were on campus.

Environmental conversion factors: Geography, including historic rural and urban township spatial segregation, unsettled the capability domain of inclusion and participation, especially for the 41 students living off campus, because they had limited physical access to their university campuses compared to the 25 students on campus.

General university conditions negatively influenced students at Rural and Country, who complained about the physical conditions, inadequate facilities, and negative reputation of the universities. The influence was both positive and negative for students at Metro, who found the facilities and physical environment very good, but felt that they were members of a university that did not prioritise the well-being of students. Students at City and Provincial thought both the ethos and physical environment of their universities were good. The university ethos at Metro diminished the capability domain of ubuntu (for students at Metro), and Rural's reputation might reduce the capability domain of future work/study (for students at Country and Rural).

Social conversion factors: Relationships (with Thusanani Foundation, their family members, university friends and significant others) were instrumental for the capability domain of emotional balance. However, these relationships did not really enable the domain of navigation. This is because the people with whom students had the closest relationships could not provide academic support, information about university culture and customs, or guidance and advice about how to manoeuvre through university systems or seek support for doing so from their lecturers. Nineteen students explicitly mentioned discrimination based on race, gender, ethnicity or socio-economic class, which impacted negatively on their sense of belonging and, hence, on inclusion and participation because they did not feel they were being recognised or treated as respected university members.

Educational conversion factors: The personal factors of language and approaches to study developed at school disabled the capability domain of epistemic contribution directly. Students came to university lacking confidence to speak English, which made them reluctant to engage in classroom discussions and communicate with their lecturers. Schooling effects also operated as a barrier to being epistemic contributors because some students brought from school to university approaches to studying which reduced meaningful learning. On the other hand, the students' own extraordinary agency efforts mitigated the negative effects. The capability for epistemic contribution requires opportunities for students to speak in pedagogic encounters, but the teaching and learning arrangements at all five universities were reliant on lecturing as a pedagogical tool. Therefore, relationships with their teachers were generally distant. Nevertheless, university education and the general experience of being at university supported the development of the capability for epistemic contribution, if often thinly and unevenly. Some, but not all, students gained knowledge that changed how they thought about and applied concepts; thought about professional practices; the way they understood the purpose of their future professions; or the way they viewed the world.

The students' non-academic participation was limited. There was some evidence of the capability for practical reason in how students drew on their personal values to make decisions about supporting #FeesMustFall to contribute to changing the lives of future students (most did) or getting involvement in associations like the SRC (a few). But none showed real interest in the relevance of #RhodesMustFall to their own situation. For students who participated in the photovoice project, narrative capabilities were supported. Fair opportunities and encouragement for engagement in non-academic spheres of the university, including social and political participation, are also important because they are potential spaces for transformative learning to occur.

Students arrived with the capability for ubuntu and exercised it with their fellow

students from the start, but other capability domains were not richly provided for by the universities. Yet, as the years progressed, students exercised their agency to take up opportunities that were available and emerged from university with a widened capability set and the achievement of functionings. So, university participation has beneficial effects, but they could be significantly augmented if pedagogical arrangements and other provisions for learning harnessed the remarkable capacity for hard work and the determination of these students who have already navigated the extreme challenges of their low-income backgrounds to access university.

CHAPTER 7

Pathways for moving on from university

Having discussed students' experiences of accessing and getting through university, we now examine factors enabling and constraining them from successfully completing their undergraduate studies and moving on to postgraduate studies or employment. The different pathways of students will encompass 'micro transitions between unemployment and employment, self-employment and employment; full time work and part time work, and permanent work and casual work' (Allais & Nathan 2012: 3–4). For us, these pathways are evidence of some operationalisation of the eight capabilities that ought to be developed through higher education. This chapter foregrounds the realisation of the capability domain of future work/study and how different capabilities can support it. Work/further study as a core functioning is an outcome of great importance to students from low-income households because it positions them and their families for lives that are less materially and psychologically precarious.

There are multiple possible pathways from education to work, with some more direct than others. These pathways vary according to the intersection of different conversion factors. This chapter is divided into two main parts: the first discusses the different moving-on pathways the Miratho students followed, while the second examines the conversion factors influencing students' freedoms to move on to work/further study. The conclusion summarises the position for Miratho students as they struggled with the transition from university.

Part 1: Different pathways for moving on from university for Miratho students

Of the Miratho Project's 66 students, 58 responded to requests for interviews in 2020 and 46 provided updates in 2021. Of the 58 students interviewed in 2020, ten studied for diplomas and 48 for degrees. By 2021, 43 students had completed their undergraduate studies and are, therefore, graduates. Table 7.1 illustrates the different moving-on pathways taken by 29 students that are expanded upon in this section. The other 29 were still studying or unemployed.

Table 7.1: Graduates' moving-on pathways

University	Further study	Learnership	Internship	Paid training	Community service	Working
City	2	1	1	1		1
Country	3					3
Metro	2*				1	1
Provincial				1		4
Rural	1		2			5
Total	8	1	3	2	1	14

*One student was studying further and working at the same time.

*Three students studied further in 2020, while two had completed and one dropped out in 2021 (see Table 7.2). They are counted as unemployed.

Further study pathway

Further study enhances a first degree (see Table 7.2). For the Miratho students, this was influenced by factors such as getting good grades, funding, information and support. By 2021, two students had completed their postgraduate studies and were unemployed, while one had dropped out.

Table 7.2: Further study: Graduates' postgraduate study (11 students)

Student	University	Further study programme 2020	Funding status 2020	2021 status
Ntondeni	Metro	Honours in construction management	Private sector bursary	Still studying and is assistant quantity surveyor
Rito	Metro	BCom Hons in business science	No funding	Completed, doing master's in entrepreneurship and new venture creation
Ndoda	Metro	BSc Hons in construction management	Metro financial aid office	Completed, unemployed
Aluwani	Country	Honours in statistics	No funding	Unknown
Rendani	Country	Undergraduate computer science	NSFAS	Completed, registered for a postgraduate certificate in education (PGCE), no funding
Thabelo	Country	Unemployed		Honours in microbiology, no funding
Nyikiwa	City	Advanced diploma in logistics	SETA bursary	Unknown
Buzwe	City	Advanced diploma in taxation	No funding	Still studying and no funding
Nyiko	City	Advanced diploma in accounting	No funding	Dropped out to focus on tax training
Nombuso	City	Advanced diploma in logistics	No funding	Completed, unemployed
Aviwe	Rural	BTech in IT	NSF funding was cut	Dropped out, registered for PGCE, no funding

For most graduates, further study was a second option. They preferred to either be working full time or working and studying part time. For example, Nyikiwa felt she 'really need[ed] to work' because she was 'from a very rural area where things are very hard' and her family needed help:

In South Africa [the] unemployment rate is very high, at least if I'm studying I'm doing something unlike staying at home doing nothing. I think it's better to be studying while applying for jobs. At least if I get a job I can be a part-time student and working on the side.

This motivation did not apply to all. Ntondeni registered for a second honours because she felt 'unprepared' for research at master's level.

While further study potentially increases graduates' chances of securing permanent employment, the possibility of dropping out was high because of a lack of funding, as illustrated by Buzwe, Nyiko, Makungu and Aviwe. Initially registered for an advanced diploma with UNISA in 2019, Nyiko de-registered due to funding problems and re-registered in 2020 despite still not having funding. Without funding, Makungu was unable to re-register in 2020 and complete his advanced diploma in accounting. Aviwe could not pay his BTech tuition and transferred to study a postgraduate certificate in education (PGCE) because registration was free. While most managed registration fees, they still worried about tuition fees.

For diploma holders, further study provided an opportunity to improve their qualifications so they could compete at the same level as degree holders. This is evidenced by Nombuso (City) who indicated that she wanted 'to leave university with a degree, not a diploma' and that the 'right qualification' would enable her to get a job that would make her 'happy and satisfied'.

Entrepreneurial pathway

Unlike Walker and Fongwa's (2017) research findings that students had little motivation to become entrepreneurs, preferring public-sector job security, almost all the Miratho students aspired to own a business. Some had concrete plans in place, while others did not. Fewer than ten students had engaged in entrepreneurial activities alongside their studies, enabling them to meet most of their university needs and look after their families. Although these students had not been taught entrepreneurship explicitly, they realised the need for self-sufficiency; others planned to pursue this after graduating.

University entrepreneurial activities were generally unrelated to students' areas of study. For example, in 2017 Aluwani (Country) started a T-shirt printing business. He realised that he was 'business-minded' and 'that [the] momentum of money ... is in my blood'. He was still running the business during his honours studies in 2020. Also, Tiyani (Metro) ran a barbershop, sold T-shirts and provided tutoring services alongside his undergraduate studies. He had realised that:

Unfortunately, your degree won't make you a multi-millionaire ... It will just make you a slave ... And that's one thing everyone is failing to figure out. A degree won't put you up there. It won't put you in those Forbes magazines.

Similarly, Thendo (Country) had not completed his degree, yet ran several businesses including importing and refurbishing iPhones, printing, forex trading, car washing, and registering businesses. He had learned about these opportunities while in university and noted that 'I have an employer mentality ... I am passionate about entrepreneurship'. Through his business proceeds, Thendo bought a car and built his mother a house. He planned to run a franchise about which he had conducted online research. Sakhile (Rural) was also still an undergraduate student in 2020 but had registered a 'multi-purpose' company providing services in construction work, cleaning, an internet café, as well as advising and assisting companies with registration procedures, SARS e-filing registrations and marketing. Family members managed the business while Sakhile studied and he felt happy to earn a living, look after his family, and study.

Most Miratho students indicated that, while working in their chosen professions, they would also pursue different business ventures such as farming and owning property. In the absence of employment opportunities, a few students engaged in entrepreneurial activities after graduation. Unlike those who had started while at university, this group was involved in areas related to their studies. For example, Vutomi (Country), a soil science graduate, was asked to partner in a farming venture. Ndoda (Metro) held an honours in construction management and in 2020 began working on plans for a residential housing construction project with a friend. From university, he had developed 'an open mind' and knowing that he could 'do things solo' without an employer. Illustrating the importance of information and support through mentoring and connections, Ndoda explained how he was in partnership with his friend and mentor who 'had connections' in the construction industry. Similarly, Siviwe (City) and a friend had registered a private company for project management after having 'gained essential skills from our internship that [would] help us to operate or manage our registered company'. Because City had not prepared him for self-employment, Siviwe had looked for information online.

Although these projects were yet to take off, the graduates would otherwise have been unemployed. Sometimes, even after securing employment, students, for example, Siviwe, continued with their entrepreneurial activities. Although this pathway could potentially enable graduates to earn a living, it seemed largely dependent on having funding and the right networks, which most students lacked. So entrepreneurship was a precarious moving-on pathway.

Internship, training, learnership and community service pathways

Internship, training, learnership and community service opportunities offered recent graduates work experience or satisfied requirements for a qualification for durations ranging from a few months to two years. Such experiences are a buffer against unemployment which 'relegate[s] young people to low positions in queues, even when they do have relatively good educational levels, creating the perception of a "youth" unemployment crisis (instead of just an unemployment crisis)' (Allais & Nathan 2012: 10). These pathways are also examples of 'pipeline' strategies where, in theory, young people recruited at entry-level positions are groomed for middle- and senior-level positions (Pauw et al. 2006). However, there is little evidence of the impact of such experiences of work on subsequent labour market experiences (Grant-Smith & McDonald 2018; O'Higgins & Pinedo 2018).

Three students (Khethiwe, City, and Sesethu and Neliswa, Rural) were in paid

internships, one had a paid learnership (Makungu, City), two were in paid training (Nyiko, City and Ntando, Provincial), and one (Mashudu, Metro) was in community service. They earned approximately ZAR 5 000 monthly. Learnerships, community service and training held more promise of permanent employment because they were a requirement for a professional qualification. For example, Mashudu had to complete community service before she qualified as a pharmacist, while Makungu, with a diploma in accounting, had a learnership with Standard Bank which would provide accreditation to work in a bank. Nyiko had a paid tax training internship with Credo Business School, after which he would be assessed by the South African Tax Board and qualify as a member. Ntando had a three-year training contract with an accounting service department, after which he would qualify as a professional accountant.

These graduates can be contrasted with Khethiwe, Sesethu and Neliswa who had year-long internships. Sesethu had completed a diploma in marketing in 2017 and a BTech in public relations in 2018 and was in her second internship in 2021. Neliswa had joined the South African Breweries (SAB) and Khethiwe @Home Livingspace as a sales associate. Despite the insecurity of internships, they provide graduates with experience and connections, as highlighted by Nombuso (City) who had missed an opportunity with DHL because they did not want students 'fresh from university'.

The pathway offered by this cluster of work experiences allows graduates to earn a (small) salary and potentially leads to permanent employment, although that is by no means guaranteed. Regardless, four of the seven students will have professional qualifications upon completion, placing them in a better position for employment.

Employment pathway

We adopt a 'thick' notion of work as an activity that not only leads to the production and consumption of goods or services, but also goes beyond production for economic value. Our notion entails the freedom to choose one's work based on preferences such as work safety, job satisfaction and security (UNDP 2015). However, Miratho's focus on low-income rural and township youth underscores the economic aspects of work. In this case, 'getting a job and being employed matter[ed]' (Walker & Fongwa 2017: 1) as it enabled students to look after themselves and their families.

Of the 14 graduates employed, only seven were employed in their area of study and earned approximately ZAR 19 000 monthly. There were six teachers and one nurse. Four of the six teachers (Tintswalo, Country, and Anathi, Sifiso and Bonani, Provincial) and the nurse (Akhona, Rural) had been funded by NSFAS, Funza Lushaka and Thusanani Foundation, and after graduating were placed in schools and a clinic. The other two teachers secured jobs themselves. Lesedi (Rural) continued as a substitute teacher at her teaching-practice school and was eventually employed permanently. In 2020, Lesedi lived with her daughter, had a car and sent at least ZAR 1 000 home monthly. Samkelo (Rural) switched to a PGCE in his final year of honours in chemistry. He was employed at his teaching-practice school and used his salary to fund the diploma which he completed in December 2019. He was permanently employed in 2020. As expected, professional programmes such as education and nursing offer a direct pathway to employment and graduates do not always need to apply for jobs: 'The fact that they have funded you, they are responsible for placing you' (Bonani, Provincial) and 'they are waiting for you to graduate' (Akhona, Rural). In such instances, the qualification is the only requirement and other conversion factors do not influence employment.

Four graduates secured contracts of one year or less in 2021. These included Siviwe (City) as a research coordinator at the South African Institute of International Affairs; Langutani (Provincial), an educator's assistant at a primary school; Vutomi (Country), a school assistant; and Ndiyafhi (Metro), working at a platinum mine. The remaining three students worked part time. Rimisa (Country) was an assistant at Country University's Community Engagement and Research Centre; Thapelo (Rural) was a member of a school's governing body; and Ntodeneni (Metro) was an assistant quantity surveyor at a construction company. While part-time work suited Ntodeneni because she was also studying, the other students were looking for permanent jobs as there were no guarantees that their contracts would be renewed.

Reflective of the broader South African context, those graduates who secured permanent employment did so because of enrolling for qualifications with high employment prospects, such as teaching and nursing.

No pathway: Studies completed but unemployed

Due to the negative convergence of various factors, 14 graduates were unable to convert their qualification into further study or work and were unemployed (see Table 7.3). This was despite two of them – Ndoda (Metro) and Nombuso (City) – having completed postgraduate studies (see Table 7.2). Also, for Sonto (City), Sabelo (Rural), Menzi (Provincial) and Vutomi (Country) the transition to work/further study was stalled because they could not access their academic certificates due to outstanding fees. It was only in 2021, after Menzi's debt was settled by ABSA bank, that he began to hope to move on, while Vutomi was eventually employed as a school assistant without his certificate.

Table 7.3: Summary of unemployed graduates

University	Unemployed graduates
City	3
Country	3
Provincial	5
Metro	1
Rural	2
Total	14

Seven of the unemployed graduates were newly qualified, having graduated at the end of 2020 or early 2021: Kamohelo – BA in governance and political transformation (Provincial); Lungile – diploma in accountancy (City); Maada – BCom Accounting; Maduvha – BA Education (Country); and Nombuso – BTech (City). However, two students (Malusi – LLB, Provincial, and Kathu – BSc, Country) had been unemployed for more than a year, longer than expected for science, engineering and technology (SET) graduates who generally transition faster to full-time employment. In the second part of the chapter we consider possible reasons.

A few students' trajectories were disrupted by Covid-19. For instance, Khethiwe (City), a BA Politics graduate, lost an internship at the Gauteng Premier's Office in

2020 after it was initially postponed due to the Covid lockdown. He eventually got another internship a year later. Also, Nelisiwe's (Rural) internship was suspended in 2020 and reinstated in 2021. For Siviwe (City) the advertisement of full-time posts was suspended and he had no funding to enrol for honours. He got a job only in 2021.

We have described how students moved on or not to future work/study, and we can see how this capability and functioning is underpinned by the other capability domains. For example, while epistemic contribution provided students with the knowledge and skills necessary to get a job or study further, in some instances, they were still stuck; this capability was not enough on its own. Some were stuck because debt prevented them obtaining their transcript, which curtailed their capabilities for practical reason, while others lacked networks, which curtailed their navigation. Others successfully employed their navigation functioning to manoeuvre around challenges and move on. The possibility and way of moving on depended on their varying contexts and resources and their own agency. It therefore becomes necessary to examine the role that conversion factors play in helping students effectively realise their capability set in converting resources (their knowledge, skills, networks and personal characteristics) into jobs and further study.

Part 2: How conversion factors influenced moving-on pathways

From the life histories, we identified a number of conversion factors grouped as (1) *educational*: obtaining the degree; field of study and labour market opportunities; university reputation and influence on labour market opportunities; (2) *material*: funding/money; and access to technology (3) *social*: information and support about jobs and study; race, gender and other inequalities; relationships and networks; (4) *environmental*: location and place/geography/community or environment; and (5) *personal*: personal attitudes and values. Some of these factors consistently affected students during access, participation, and when moving on (or getting stuck). In our discussion, we note how conversion factors do not predictably or neatly intersect.

Educational conversion factors and their effect on labour market opportunities

For us, universities ought to promote the capability domain of future work/study. The educational conversion factors that influenced students' moving on were obtaining the diploma/degree, field of study, and university reputation and influence.

Obtained degree/diploma

Moving on depended on students' obtaining a degree or diploma and on how well they passed. While 43 students completed their studies (see Table 7.4), fewer than 20 were able to move on as a result of the largely negative intersection of conversion factors. For a few, this was despite passing well enough to qualify for postgraduate study. For example, Sonto (City) qualified for honours and had been accepted, but could not obtain her transcript because she was in debt to the university. While a few outstanding students such as Rimisa (Country, Bachelor of Indigenous Knowledge Systems) and Bonani (Provincial, BEd) had distinctions in more than half their modules, others had average passes which allowed them to graduate but not study further, for instance, Makungu (City).

Table 7.4: Total number of graduates by qualification

University	Degree	Diploma	Total graduates
City	3	6	9
Country	9	0	9
Metro	10	0	10
Provincial	5	0	5
Rural	6	4	10

Almost all students thought that they could have performed better in easier circumstances, especially financial. For example, Nombuso (City) had ‘mixed emotions’, and noted that given ‘every resource that I needed, I could have done more than what I did now ... if I had my dedication, my hard work and full resources, then I believe that I could have been the cherry of the cake’. Also, Sesethu (Rural) felt she ‘could have done better but that’s the best I could do at that time’.

It is worth reflecting on the pathway taken by Rito (Metro) who, unusual for the Miratho group, said he ‘could have done better if I’d wanted to’:

It was a question of trade-offs, to say do you want to focus only on academics or do you want to develop a well-rounded person, also getting involved in business. Getting involved in leadership, which takes up part of your time. At the same time, building your academic stamina and so on. [I want to become] a well-rounded person, who is able to understand what [I am] doing, both inside a classroom and outside the classroom. And actually, being able. You know more of application than just focusing on 100% in the classroom and leaving the other part outside the classroom.

Rito values both academic and non-academic participation and development in the different capability domains, which we believe better positions graduates for moving on. Hence, by 2021, Rito had completed both his undergraduate and honours degrees and was studying for a master’s in entrepreneurship and new venture creation at Metro, in addition to being the CEO of the Young African Entrepreneurs Institute. While both Sonto (City) and Rito obtained their degree and can be said to have developed attributes of epistemic contributors, a crucial difference between them was Sonto’s inability to obtain her transcript. Of the Miratho students, 13 were still studying (Table 7.5). When the Miratho Project began in 2017, students were already in their second year of study and the duration of their studies varied according to the programme and whether they were in an extended programme.

Field of study and labour market opportunities

The field of study and available employment opportunities are key determinants of graduate employment and their earning potentials (Allais & Nathan 2012; Cape Higher Education Consortium [CHEC] 2013; Van der Berg & Van Broekhuizen 2012; Walker & Fongwa 2017). There are better employment prospects for students from SET, accounting, education and nursing, but fewer prospects for those from the humanities, including social sciences, which do not prepare students for professions (Development

Policy Research Unit [DPRU] 2006). The negative intersection of field of study and employment opportunities with class and race mostly results in black students' getting low grades in SET due to poor quality schooling (see Chapter 5), which, in turn, results in their enrolment in humanities programmes (Van der Berg & Van Broekhuizen 2012).

Our findings generally corresponded with the above. Nursing and education graduates were employed relatively quickly (within six months of completion), especially those with government bursaries. To increase his chances of employment, Samkelo (Rural) paused his honours in chemistry to study a PGCE 'because in South Africa you never find any job with your BSc'. He had been unsuccessfully applying for jobs since completing his chemistry degree in 2018. He became a physical science teacher before even graduating with his PGCE and was permanently employed after its completion. Given the good employment prospects in education, Awiwe (Rural), Langutani (Provincial) and Rendani (Country) also enrolled for the PGCE in 2021. Tintswalo (Country) did not regret studying education instead of law 'because I can see there are a lot of graduates who are not working now ... I just imagine if you have done Law and become part of the unemployed'. The rapid employment of education graduates can also be attributed to the shortage of qualified teachers in rural areas, especially in the sciences. Hence, Aphiwe (Provincial), majoring in biology, life science and business studies, noted:

I would say that it's going to be easy for me to get a job. I feel it's going to be easy because, well, I'm doing education, but my majors are coming from other faculties, which I think that makes me a person to have a broader knowledge about things that I'm majoring in.

On the other hand, as a social work graduate, an underfunded public-sector field, Sabelo (Rural) was 'losing hope'. He gave the example of the classes of 2017 and 2018 from which none are permanently employed, despite a few getting short internships. Highlighting the limited prospects in marketing, Neliswa (Rural) found it 'depressing' to compete for jobs with grade 12 certificate holders. To compensate, she made herself more 'marketable' by using her bursary textbook money for a driver's licence, a requirement for an internship at SAB.

Pauw et al. (2006) also observe that, for engineers, scientists and technicians, skill shortages are more severe at the middle to senior management levels, for which graduates do not qualify. This is highlighted by Siviwe (City) who noted that for 'most management positions you need to at least have an honours degree'. Also underscoring the need for further learning, Olwethu (Rural) explained that:

Around the science sector, jobs are very scarce, so not like you are able to get Master's and then you can be snatched up by some research body or something. ... So there are chances that I will get my Master's and I may spend two years without getting any job, only getting internships and such things.

Beyond good grades, employers also require other important skills such as communication, leadership and management, which are developed through administration or academic assistance positions, representation on student bodies or work experience (Oluwajodu et al. 2015; Pauw et al. 2006). Only a few students, especially those from

Metro such as Rito and Ndiyafhi, seemed aware of these demands. Ndiyafhi explained:

I hope they look past my academic record and look at other skills I have. [It's] not necessarily squeaky clean [but] it's not the worst it could be. I've seen people with worse records get into bursaries because of their leadership skills and things like that, so it does help to be in leadership and things like that. If you are just a quiet person and you are failing, just forget about getting a job in the mining industry. There are some people last year who were A-students, they still don't have jobs because they were not involved in anything. So you have to be involved in things. You can't just be good academically, you have to do other things.

While the field of study does determine labour market opportunities to a significant degree, students were able to overcome their limitations by augmenting their academic qualification with a professional qualification such as a PGCE, acquiring other non-subject specific skills and building networks to get information and support to move on.

The influence of university reputation on labour market opportunities

This examined students' perception of their universities' reputation and its influence on employers' preference for or disinterest in hiring from specific universities. Some differences reported by students in the quality of education can be ascribed to 'historical differences in the amount of development support, function, governance, funding and resources availed to universities resulting in the distinction between historically disadvantaged, black universities and historically advantaged, white institutions' (CHE 2004: xv, 24). Because of challenges in measuring quality, university reputation is used as a proxy by employers to determine graduate quality. Therefore, higher levels of unemployment among graduates from historically disadvantaged universities may exist 'because of employers' perception ... and the fact that they [universities and students] do not engage with employers to understand the right skills needed to be successful' (Oluwajodu et al. 2015: 8). Rising unemployment among young graduates is partially ascribed to '[t]he poor quality (or the perceived poor quality in the eyes of employers) of many tertiary training institutions in conjunction with the poor performance of the majority of the previously-disadvantaged formal schooling system' (DPRU 2006: 18–20). Of course, this has been exacerbated by Covid conditions.

As a conversion factor, university reputation was linked to funding, race, field of study and labour market opportunities. The Miratho group had varying perceptions of their universities' reputation (congruent with the findings of CHEC 2013; Letseka et al. 2010; and Walker & Fongwa 2017). Those from Metro, City and Provincial generally felt that their universities provided better employment prospects than those from Country and Rural, which tallies with public opinion. For example, Khuselwa (Metro) noted that, because the teaching at Metro is more advanced, 'when you apply for vacation work it boosts you because you are now able to do many projects compared to other people'. Similarly, Mashudu highlighted that Metro was:

One of the best universities in the country, they had many facilities, for example, we did more lab work and we were exposed to more research. I mean, for example, we managed to manufacture stuff like tablets, stuff like medicines and stuff like that.

When I speak to other graduates from other universities they never had that opportunities because their universities, they didn't have the facilities that we did have.

Consequently, historically advantaged universities are generally 'regarded as the top universities in South Africa, with sound reputations and high quality of education' (Oluwajodu et al. 2015: 7). This can produce employer bias against graduates from specific universities because of 'their perception of the universities' educational standards and culture' (Oluwajodu et al. 2015: 9).

While university ranking sometimes informs students' choice of university, the Miratho students did not always go to the university of their choice (see Chapter 5). For example, Thusanani Foundation chose the mid-ranking Provincial for Malusi, while he would have preferred the 'top universities'. For him, the 'law faculty is not ranked high even if you can go to Google. I think around number 12 or something'. Malusi made an example of his friend who, despite having a cum laude pass, took two years to obtain articles. The friend 'works in one of the big five' law firms, and was informed that they preferred students from highly ranked universities like Metro. Therefore, Malusi did not think that being a Provincial graduate 'helps a lot'. This might explain his unemployment (he is currently a taxi driver).

Rural graduates thought that students there were undisciplined and the university under-resourced. Neliswa noted the absence of white lecturers and students, which she thought limited student interaction and growth. Samkelo explained that their employment opportunities were limited, 'because employers want graduates whom they are sure learned properly' and because of the constant strikes at Rural, one might not have 'finish[ed] the curriculum'. More than half of the Rural students were aware of the negative perceptions held by employers and the general public. Thus, Olwethu indicated that 'almost the majority of the country doesn't take Rural as a university' because 'it always has issues ... to an extent that people just assume that nothing productive will come out of it'. He explained that, while presenting their research proposals, they could '[j]ust sense from the way they're looking at [us] like they are not expecting anything productive out of a person who is studying at Rural. They are always looking for flaws and always attacking'. For Olwethu being a Rural graduate meant 'slim' employment opportunities. In the same vein, Samkelo (Rural) said:

I want to change from Rural. Or at least one of these universities that people recognise. You see, when you are coming from Rural everyone looks down on you and say, you serious? Like now I want those high profile universities ... They just say, no you're from Rural. Rural is the worst striking university.

Nevertheless, despite the poor perceptions and inadequate facilities, some Rural students believed that the institution was good. For instance, while Akhona 'strongly agree[d]' that other universities looked down upon Rural, he believed that it was 'right' for him as a rural person because of its affordability, proximity to home and lecturers who understood students' circumstances. Also, 'because we are not being taught by the walls or the infrastructure of the school ... It depends on you, if you want to study, you study'. Therefore, if one was willing to work hard, the quality of education was 'good' and people he worked with did 'not judg[e] where we are from, but what we

know'. Similarly, despite the negative perceptions, Samkelo found Rural 'very accessible' because of its location in a province 'where the poor and the poorest people are'.

Still, while Rural 'cater[ed]' for poor students, some indicated that this made succeeding difficult. Therefore, 'there are barriers on how, what, where can you go and what you can achieve as a Rural graduate because companies want students from other universities' (Awiwe). Also emphasising the influence of location, Thabelo noted that, while the quality of education was 'not that bad' at Country, it was judged harshly because it was in a rural area.

From student life histories, while university reputation mostly stems from the quality of learning, this is to a great extent determined by historical legacies. These influence 'institutional capacities, the socio-economic backgrounds of their students, and the quality of education that they can provide' resulting in differences in outputs (Van Broekhuizen et al. 2016: 10–11). It is important to point out that, among the Miratho students, those at Rural did not seem to fare worse than those at other universities in finding employment.

Material conversion factors and their influence on moving on

Funding/money

At the stage of transitioning out of university, a lack of money continued to be a strong negative factor in students' lives. In this context, funding/money was for outstanding fees, further studies, online job searches and transport to attend interviews. A lack of money restricted students from moving on in multiple ways. For instance, student debt prevented access to academic certificates or transcripts, key documents in applying for further studies, and internships and jobs. Also, some could not fund postgraduate studies despite getting good grades, while others did not have money for job searches, applications and attending interviews. Funding, therefore, also intersected with access to technology and geography.

Because moving on depended on students' completing their studies, we can say the remaining 13 students still doing their undergraduate degrees were on course to completion (see Table 7.5).

Two students (Dumisani and Makhosini, both City), however, were no longer studying because they had lost NSFAS funding after failing modules. Dumisani's parents could not afford 'to pay 45 thousand ... They can't even afford for me to get a laptop while doing this online thing right now. So, I wouldn't put so much strain to them'. Nelisiwe (City) and Wanga (Metro) postponed their studies in 2020 because they could not fund it, but re-registered in 2021. Nelisiwe registered despite still not having funding; she was waiting for her NSFAS appeal. Sakhile had managed to circumvent his funding challenges: he had failed to register for his final year at Rural in 2018 due to outstanding tuition of ZAR 125 531.50. Despite successfully applying for NSFAS in 2020, he was unable to return to Rural because of historical debt, which NSFAS does not cover. Fortunately, he had applied to another university to do an agricultural management diploma, which he had started in 2020. In this way, he improved his chances of getting a qualification, favourably positioning himself for employment.

Table 7.5: Students still studying for their first degree in 2021 (six years after registration)

University	Degree programme	No. of students studying
City	BCom Accounting	1
Country	BCom Accounting	2
	BSc in Maths and Statistics	1
Metro	BSc in Mechanical and Civil Engineering, Construction Studies and Computer Science	4 1 unknown
Provincial	BEd	3
Rural	BEd	1
Total		13

Some students could not access their academic certificates. For Sonto (City), Sabelo (Rural), Menzi (Provincial) and Vutomi (Country), the transition to work/further studies was affected by their failure to access their academic certificates due to outstanding fees. Menzi graduated with a BCom Accounting and a debt of about ZAR 72 000. He noted, ‘without the academic record my life is just stuck, that’s why I had to go back to stay at home’. Fortunately, Menzi’s debt was settled by ABSA in 2021 and he was hopeful of moving on, while Vutomi got a job as a school assistant.

These four can be contrasted with Neliswa and Sesethu (both Rural) who managed to secure internships despite not having their certificates. Despite owing Rural ZAR 40 000, Neliswa had used her academic transcript to get an internship at SAB. Sesethu also secured an internship at the University of KZN. She explained that ‘you have to convince them that it’s the only way ... And they should understand. But most people do understand, but some places strictly want the certificate, no matter what you say, they just want the certificate’.

Illustrating the intersection of funding and community/geography as negative conversion factors, Menzi from Joe Gqabi in the Eastern Cape said, ‘home is a small village’ with few employment prospects, especially for graduates. He started to hope about moving on after his debt was settled by ABSA in 2021. Showing the negative intersection of funding and a lack of information, Vutomi (Country) completed his honours degree in soil science in 2019, but was unaware of the need to apply for funding and therefore owed ZAR 18 000. He obtained his academic record but not his original certificate, which limited his moving-on prospects. He secured a job as a school’s assistant only at the end of 2020, but still owed the outstanding fees.

For some students, a lack of funding determined whether they studied further or looked for jobs. While NSFAS funded over half the students’ undergraduate studies, it does not fund postgraduate studies. For instance, Langutani (Provincial), a 2019 graduate with a BSc in genetics and microbiology, applied for honours but was unable to secure funding despite being accepted at two universities. She eventually got a short-term contract as an educator’s assistant and enrolled for a PGCE at the end of 2020. Also, Nyikiwa (City) and Rendani (Country) opted to study because the funding ‘was there’ rather than stay at home.

A few students such as Madoda (Rural) had limited money to apply for jobs online and attend interviews (see Madoda's story in Chapter 8). Also, given that the Miratho students were from low-income households, unemployed graduates were worried about the financial strain on their families who were looking after most of them. For instance, Kethiwe (City), a 2019 bachelor's in politics graduate, was employed only in 2021. Until then, he tried not to 'stress' his single mother and asked only for 'simple things like toiletries'. As we have seen, these students were highly motivated to look after their families. In some instances, those who graduated and became permanently employed became their family's 'sole breadwinners'. This was a source of pride, for example, for Tintswalo (Country), now a secondary school teacher, and Akhona (Rural), now a nurse, who could look after their families and support their siblings.

Access to technology

Given the importance of online information sources to students, especially under Covid-19 restrictions, it is crucial to have easy access to computers/laptops and affordable internet on or off campus (including internet cafés close to home). Access to technology was a persistent problem for some students, and Covid-19 underscored existing inequalities. It worsened the digital divide – the difference between those who have and do not have access to computers, data and the internet – caused by socio-economic factors, race, social class, gender, age, geographical area and educational background (Mpungose 2020). Because of Covid-19 lockdown restrictions, most students relied on the internet for most information. While some students such as Wanga (Metro) were able to take online courses (she did 'Artificial intelligence' and 'Introduction to data science'), a few such as Madoda (Rural) could not afford to. A lack of access to technology also limited students' participation in learning, which slowed their progression.

Sometimes access to technology intersected with geography as some students' home areas did not have electricity (see environmental conversion factors) which limited their communication and access to information. In this way, material conversion factors intersected with other factors, limiting students' moving on.

Social conversion factors and their effects on moving on

For the purposes of our study, social factors included information and support about applying for jobs and further study; relationships and networks; and race, gender and other inequalities.

Information and support about applying for jobs

The capability for moving on to work or study is strongly influenced by the presence or absence of information and support about study options and applying for jobs, including job searching strategies, writing a good CV, preparing for interviews and starting one's own company. Such information can come from universities, friends, family and different networks.

More than half the students did not get information and support about job-hunting strategies and preparing for interviews at university. Students, especially those from Rural and Country, were generally unaware of career services provided by their institutions. Revealing intersection with access to technology, in most cases, students learned

about job opportunities and further studies predominantly online and less from friends. For example, Neliswa (Rural) received 'a lot of information' about applying for jobs online. Aviwe (Rural) also indicated that lacking information and mentorship 'was quite a big challenge ... [e]specially at first year and final year', and because he did not 'have anyone', he relied on Facebook, Twitter and reading for information. Akhona (Rural), a nurse, similarly noted that, because he lacked mentorship, he looked for information on possible master's studies online. Similarly, Buzwe (City) admitted that 'it's rare to find those kind of people that have time maybe to motivate us, so maybe to tell us what you do, where you can get correct information'. To get information, students registered on different platforms such as Careers24, LinkedIn, Indeed and Facebook.

Unlike Country and Rural students, those at Metro, especially from the engineering faculty, highlighted counselling and career services. For example, Ndiyafhi described the school of mining as 'very tight knit' and helpful because they focused only on engineering CVs, interview etiquette and employment strategies (though most mining students were still studying). A few students found information and support from supervisors and lecturers. For instance, Olwethu (Rural) was informed about funding from the National Research Fund (NRF) by his lecturer: 'He is very supportive, always keeping us updated, if there is funding somewhere, updating us ... and then he even assisted us applying.' To some extent, the lack of information and support intersected with students' material and cultural circumstances as highlighted by Samkelo (Rural). Because his father 'never went to school' and therefore could not advise him, Samkelo had to explain his plans to his father. Overall, relationships and networks played a big role in whether or not information was available.

Relationships and networks

Immediate and extended family members, significant others (including lecturers), friends and the various relationships and networks at university or within home communities were key in assisting or limiting students' moving on. We consider these networks as an important source of social capital.

Family: More than half the students had good relationships with their families who encouraged and supported them in different ways. While family members generally lacked relevant information relating to job opportunities and further study, they encouraged students to apply, especially for jobs, in addition to providing for them before they secured employment. Except for a few, such as Buzwe (City), who moved away from their families upon graduation (he moved to Cape Town and his family was in the Eastern Cape), most students relied on their families for basic resources. However, there were also a few instances where families were a problem. For example, Makungu (City) and Olwethu (Rural) had trouble convincing their families of their preference for further studies rather than settling for just any job. Despite wanting to help their families, a few students felt pressured by expectations such as buying monthly groceries and building houses especially if they wanted to study further. Samkelo (Rural) explained: 'Our parents don't know honours ... They just know that "No my child ... he should be working".' Similarly, Olwethu (Rural) found it challenging 'trying to make them understand that I just want to continue studying. It was very hard for them to understand, because in their minds it was going to be like I'm just going to do a degree, then get a job, then start providing'. Also, while Tintswalo (Country) enjoyed

helping his family, he noted that ‘they just want everything to change now. And this salary, you can’t change everything now, you have to be patient’.

Friends and others: Friends and the capability for ubuntu played a significant role in assisting some graduates to move on, especially through sharing information about funding and employment opportunities. For example, Neliswa (Rural) achieved an SAB internship because her friend ‘fought’ for her to get it. In turn, because Rural offered no career advice and students ‘really struggled to get jobs [because] [t]hey are not aware of things; they do not know how to use internet that well’, Neliswa shared the information she got online with friends. Consequently, one of her friends applied for and got employed. Highlighting the importance of ‘life-time kind of friendships’, Rito (Metro) acknowledged that ‘you create brotherhood because that is sustainable, more than just like any encounter’. It is such friends that students went to for help.

Graduates from low-income households are unlike middle-class students in that they do not have social networks that include professionals such as doctors, lawyers and psychologists who make it easier to secure internships, acquire experience, and make referrals to other employers (CHEC 2013; Walker & Fongwa 2017). Madoda (Rural) explained his prolonged unemployment in terms of not having connections in the mining industry (see his story in Chapter 8). Ndiyafhi (Metro) explained that ‘you need to know people who know people’. Ndoda (Metro) illustrated the importance of connections, especially in entrepreneurial activities, by giving the example of his mentor who ‘knew someone who knew someone’ who ‘connected us to the person who gave us the project’. Similarly, in order to facilitate her dream of ‘work[ing] outside the country where they have big engineering projects’ and where she could gain experience before starting her own company, Khuselwa (Metro) joined the American-based Institution for Civil Engineers and had a mentor from the Transnet group which funded her bursary. Networks also intersect with university reputation, as Mashudu (Metro) explained:

Our university had a lot of connections, for example, with people that have been in the industry for a long time that are Metro graduates also, so these will come to us and talk to us about careers and stuff. And we used to have more workshops and stuff, and we got exposed to the pharmacy industry as a whole and not just as a pharmacist working in a pharmacy.

However, except for a few, mostly from Metro, students seemed unaware of the importance of such networking.

Race, gender or other inequalities (excluding money)

Although this was the least common conversion factor, explicitly mentioned by only nine students as illustrated in Table 7.6, it does not mean that non-financial inequalities did not affect them. In an unequal country such as South Africa it is difficult not to experience racial and other social inequalities directly and indirectly, especially given the history of some universities’ collusion with apartheid. Possibly systemic racism is so ingrained that it is not recognised for what it is and it must be at work when, of unemployed young graduates in South Africa, 80.8% are black and only 19.2% white (Mncayi 2021).

Table 7.6: Forms of discrimination experienced by students

Student	University	Form of discrimination				
		Race	Gender	Rurality	Class	Information
Nyikiwa	City	X				
Khethiwe	City					X
Dumisani	City				X	
Tiyani	Metro				X	
Sifiso	Provincial	X				
Kamohelo	Provincial	X				
Madoda	Rural				X	
Samkelo	Rural			X		
Aviwe	Rural			X		

The most common forms of discrimination were race and class. For instance, Kamohelo (Provincial) explained how he became ‘a conscious black man and everything has to come from that classification. I don’t have to fit in. I don’t have to do certain stuff in order to be considered as cool’. In describing complicated race relations and employment opportunities, Sifiso explained how ‘white people have treated black people extremely badly ... there is that problem when it comes to racism, but besides that thing, everything is fine because [Provincial] produces great teachers’.

Class inequalities also emerged, as Tiyani (Metro) explained:

I’ve experienced this whereby certain individuals they make it seem as if it’s your fault in a way for you to be how you are, for you to have not been born in a point of privilege. So they look down on you, they treat you otherwise. So that was like the main part that was frustrating me, that now I’m getting a certain treatment just because of things that I didn’t choose.

Intersecting with the lack of social capital through relations and networks, Madoda (Rural) explained his period of unemployment as a result of ‘not [being] recognised [by] big guys’ in the construction industry who provide jobs. Therefore, ‘you are left behind’ despite having the qualification.

For Samkelo and Aviwe, inequalities were in the form of rurality/geography and a lack of information to access, participate and move on. No one from Country mentioned inequalities possibly because students came from similar racial and class backgrounds. Thendo (Country), for example, said that he would have liked to attend a ‘white’ university where he would be ‘hated’ so that he would have had to work hard to prove his worth. Implicit in the discussion on inequalities would be the apartheid legacies experienced in historically disadvantaged universities which even now influence participation and moving on.

Environmental conversion factors and moving on

While geographic location affected most students at the point of access, it remained a factor in influencing moving on, especially for some rural students.

Location and place/geography/community or environment

Inclusive in this conversion factor is community, place/geography/location or environment (e.g. rural or urban, home or university). The spatial or geographical location of the university combined with its reputation to increase or reduce graduate attractiveness to employers (Van der Berg & Van Broekhuizen 2012; Walker & Fongwa 2017). High-ranking universities are located in metropolitan areas such as Johannesburg, Cape Town and Durban and are close to large companies, while rural-based institutions (Country and Rural) are less well placed. This inaccessibility provides an employment 'spatial mismatch hypothesis' (Mlatsheni & Ranchhod 2017: 10) whereby employers are not attracted to the university, which restricts networking opportunities for internships and placements. Because employee recruitment is normally done at head offices located in metropolitan cities, universities on the margins provide fewer opportunities for their students (Walker & Fongwa 2017). Malusi (Provincial), a law graduate, added a further dimension to the role of geographical location by indicating his preference to work in Gauteng rather than smaller cities because salaries are 'two [to] three times more ... for the same type of work' and 'the firms there are really much more developed'. He noted how 'the big five law firms' have their offices in Sandton (Johannesburg).

A few graduates wanted to stay in their communities and faced challenges finding employment in their communities and surrounding areas. For instance, Sabelo (Rural) from Lukhanyisweni in the Eastern Cape noted how his social work degree was less useful than technical and vocational skills such as carpentry and agriculture. Consequently, he was considering studying carpentry, 'something that will get me a job'. Most are willing to leave their communities in search of work and apply all over the country for different jobs. Even those few who initially applied for jobs near their home because of the convenience of having accommodation, increasingly widened their search area and were not averse to moving.

In the last interviews there were fewer mentions of communities by students who, in the initial interview, wanted to use their degrees to give back. This was not because students no longer valued their communities. Rather, there seemed to be an acknowledgement that what they could realistically do in the short term was limited. Students who spoke of their communities generally mentioned future entrepreneurial projects they wanted to set up such as farms, orphanages, accounting firms and better technology. As indicated by Aviwe (Rural):

Without the community there is no one. We are where we are today, because of the situation of our communities, that we are trying to improve. Everyone has a story of their community. Of course, some also offer some support since we are studying. At least there is a motivation we get from our communities.

In general, the graduates became more dispersed as they found employment in different cities and locations.

Personal conversion factors and students' moving on

In examining how personal attitudes and values influenced moving on, we discuss characteristics such as hard work and aspirations, as well as a clear articulation of plans for the way forward, illustrating some examples of the capability domain of practical reason.

Personal attitudes, values and characteristics

While personal attitudes and characteristics enabled individuals to navigate through university and move on, agency was confined by available opportunities. Allais and Nathan (2012: 8) warn against a 'bias and over-emphasis on individual agency as the key determinant of transition outcomes'. Similarly, Heinz's (2009: 400) study on structure and agency highlights how personal transitions are socially embedded

in opportunity structures, social networks and institutions, but take their course through individual agency of constructing meaningful connections between past experiences and future plans, a construction that is strongly influenced by present living conditions.

For approximately half the students, the future was uncertain. This was mostly due to unemployment or insecure employment pathways. For instance, despite having an accounting diploma, Buzwe (City) had only bleak job and study prospects. Yet, he was determined to succeed and was trying various options. He had few connections in Johannesburg, so he moved to Cape Town and was working at a taxi rank. He also registered for an advanced diploma with UNISA, despite not having funding. In Chapter 8 we can see from the life histories of Sonto and Madoda the impossibility of long-term planning due to the negative confluence of conversion factors such as funding, field of study and labour market opportunities, and information and support.

Despite challenges, as we have been emphasising throughout this book, students exhibited agency in their determination, drive and curiosity. Curiosity and commitment were identified by Olwethu (Rural) as key to learning about one's field. It was:

About asking people around, what is this course all about? What are my chances with this course? What are my paths? What can I choose? What can I do, going forward? Asking those questions to relevant people really boosted my confidence a lot, because, just starting from first year I was clueless about the science field at all.

Determination was displayed by most students. Despite not having much family support, Makungu (City) noted: 'I'm also trying to push, but I don't know how it's going to go, but I'm trying to push by all means.' However, sometimes students pushed unsuccessfully, as other factors such as a lack of funding and networks interposed. Dumisani (City) told us:

There's no way that I'm going to just give up all the efforts, the sleepless nights, the travelling back and forth from one province to another just to get money to go to school and whatsoever, for me to just flush it down the drain without getting this degree.

Unfortunately, despite his determination, by 2021 he was not studying, had no funding, and had no degree. Students' life histories generally illustrated that, although important for low-income students, 'grit and determination in the face of hard circumstances (at university)' alone is inadequate to secure employment 'in the absence of capability-enhancing pedagogies, financial resources and other supportive educational arrangements' (Walker & Fongwa 2017: 64).

Another form of determination was displayed by Neliswa (Rural) who had managed to save ZAR 15 000 towards opening a business before her internship was suspended. While unemployed, Neliswa refused to use her savings ‘no matter what is happening’. Although her internship was for a year, Neliswa had long-term plans to be permanently employed by the SAB as an account manager and later as a senior manager. To achieve this, she had given herself ‘challenges and work[ed] very hard’ so that ‘they should know that I deserve this’. Because of her work ethic, her boss was grooming her and recalled her to resume her internship after the Covid-19 restrictions on alcohol sales were lifted. However, her internship was under threat because she had no certificate due to outstanding fees.

Although some experiences deterred students from moving on, they still persevered. For example, Phusu (Metro) was still studying towards her BSc in mechanical engineering. She had failed courses due to a lack of funding and had to leave the university residence and stay with an uncle who abused her. She also fell ill before the June 2019 examinations and failed more modules. Phusu was excluded and underwent three appeal processes before being reinstated. She also had to go for professional counselling.

One or two students appeared to be giving up. Tshilidzi (Country) seemed depressed, passive and listless, explaining that ‘there’s nothing important, I’m just living’. She had failed a repeat module and ran the risk of being de-registered. She felt that university had been a waste of time, did not want to talk about her family, and had no friends. Despite wanting to study honours she had no idea how to move on. The unemployed students generally felt a sense of running out of time. For instance, Buzwe (City), aged 26, worried that his age lessened his opportunities: he was above the cut-off age of 18–25 for internships. Nyiko (City) raised similar concerns about ‘stay[ing] too long without any experience, [which would make] the qualification outdated’.

Despite some students initially being uninterested or unknowledgeable about their fields of study, most eventually grew to enjoy them (see Chapter 5). However, Konanani (Country) was an exception as ‘[her] heart was not at Country University’ – she had only gone there because she qualified for university. Her ‘passion’ was cooking and she planned to go to culinary school. While a few students might have been ‘stuck’ in fields of study they were uninterested in, they generally worked hard to acquire the qualification as it was a step towards moving on and achieving financial autonomy.

Conclusion

Walker and Fongwa (2017: 106) highlight that, ‘[f]or students from disadvantaged backgrounds, access to university, challenging as it is, is perceived as an immediate panacea out of poverty and towards social mobility’. However, as the above discussion illustrates, universities also reproduce inequalities, providing quality education and employment to better-off students, while low-income students ‘struggle through universities and graduate at a point of disadvantage even before getting into the labour market’ (Walker and Fongwa 2017: 106). Student life histories revealed that not all students from low-income households who enrol at university complete their studies (as demonstrated by the statistics) and transitioning from university to work is complicated.

The five clusters of conversion factors illuminate the complex interplay which potentially perpetuates existing inequalities among low-income students. Although

graduate unemployment is lower in comparison to wider unemployment, for jobless graduates from low-income households, no matter how few, any job is important. While people should ideally choose valued jobs, in cases where student debt exists and family members rely on social grants – as is the case in the rural areas of Eastern Cape and Limpopo where most of the students were from – university education is an avenue for social mobility, and job satisfaction comes second.

Our conversion factor clusters intersect to support or suppress moving on. Although all factors contribute towards students' transitions, some such as funding, university reputation and field of study appear more critical than others. Their negative intersection with information and support, relationships and networks and geography, for example, tends to override any positive effects of personal attitudes. Therefore, despite achieving the different capability domains, especially that of epistemic contribution, students' opportunities were not always broadened in ways that allowed them to use these capabilities and function in valued ways after leaving university. An evaluation of students' (in)ability to move on also illustrates unevenness in their achievements in the different capability domains. While 43 students can be said to have expanded their capability sets by way of university education, especially the epistemic contribution capability, only 29 were able to exercise them as functionings in moving on to some form of work or study.

The ability to function in the other capability domains was uneven. Graduates who were unemployed and in precarious pathways were generally constrained in the domain of practical reason because of the negative effects of conversion factors such as funding and debt (no academic certificate), no information or support and limited employment prospects in their fields of study which made it difficult to plan a career or life. For example, Sabelo (Rural), a social work graduate, achieved the degree in good time and showed evidence of the various capabilities (ubuntu, epistemic contribution) but was limited by not having enough money. He could not pay his outstanding debt to secure his transcript and certificate, and travelling to an interview would be financially difficult. Conversely, the few permanently employed graduates were better off, and able to make future plans such as sending siblings to school and building family houses.

Graduates generally exhibited strong navigation functionings as they tried to secure employment in uneven contexts. While it was easier for those who got government placements, a few had to find their own way. This was through, for instance, recognising the limited employment opportunities for undergraduate degree holders, and augmenting the academic qualification with a professional qualification such as a PGCE, as Samkelo did.

Because students valued ubuntu and other peoples' well-being, they shared information about moving on with their friends. However, their networks and other forms of social capital, especially in relation to future work/study, were quite limited. While family and community members were emotionally and at times financially supportive, they generally lacked concrete information on the various fields of study and related employment prospects.

The narrative domain was apparent in students telling their stories as part of the Miratho Project. With one exception, they all valued the opportunity to reflect year on year in a non-judgemental space. Inclusion and participation were limited due to students' inability to move on either because they were still studying (13), had dropped out (two), or were unemployed (14). Finally, emotional balance was not realised by all,

as some students continued to worry about funding to complete undergraduate studies; about further studies; and about unemployment or permanent employment.

As this chapter has illustrated, students from challenging low-income households can access university and encounter valued capability dimensions, but lack the platform for these developed capability dimensions to be effective as they move on. Too many do not have an effective capability set for future work and study or for the other capabilities, in particular epistemic contribution, to be effective. For those who manage to move on, the capability set is effective, but for others, it is precarious. In this way, while higher education might expand students' capability dimensions, as long as opportunities in the labour market are not favourable, the outcomes are, at best, patchy. However, this does not exonerate universities from trying to develop students' capability sets. Even if they do face serious challenges upon leaving university, their moving-on prospects would be worse without an effective set, especially in light of current pandemic-related challenges.

CHAPTER 8

Five students' life histories

Conversion factors, functionings and inequality

We were influenced by the work of Daniel Bertaux and Paul Thompson (2006) in placing the life-history method at the centre of our Miratho research. They summarise the strengths of the approach by stating that life histories:

[B]ring home the complexity of the sequences of cause and effect in human lives. In choosing particular courses of action, structural constraints such as economic needs interact with value orientations, moral obligations, self-determined goals, and the individual's own perception of the situation and choices ahead. (Bertaux & Paul Thompson 2006: 17)

Having discussed the Miratho students' access trajectories (Chapter 5), university participation (Chapter 6), and how they moved on to further study or employment (Chapter 7), in this chapter we focus on selected individual stories to capture the rich day-to-day experience of intersecting conversion factors, agency and inequalities of university education. Moreover, this approach allows us to avoid the monolithic view that all low-income students struggle with the same problems and to the same degree, or that they have the same opportunities to convert resources into similar outcomes. Simultaneously, we can trace commonalities among students. We consider here how conversion factors variously affect individual student's opportunities for developing multi-dimensional capabilities and key functionings (Chapter 4). In these narratives we also see the Miratho Matrix being operationalised across its four dimensions of capabilities, functionings, material factors and conversion factors, as these worked out and came together in each person's life.

Of course we recognise the possibility of repetition but we wanted to provide a holistic account of a sample of the students' lives to show the Matrix at work and the dynamics of changes brought together in a life over time. The three previous empirical chapters do not do this, given that they are intended to range across the whole dataset and break up the stories into access, participation and moving on. Here, we bring these stages back together.

This chapter draws from the life-history synopses and the access, participation and moving-on conversion factors tables that we compiled for each student. Excerpts from the photovoice and 'Imagined Futures' workshop discussions are also incorporated.

From the narratives of the 58 students we retained over four years, we selected five students, two men and three women, two from the Eastern Cape, two from Limpopo and one from Gauteng, whose university stories illustrate the variation in intersectionality of conversion factors and functioning achievements. We selected one student from each of the universities: Mashudu (Metro), Sonto (City), Aphiwe (Provincial), Madoda (Rural), and Rimisa (Country). Their stories provide empirical examples of how a university career can be experienced differently.

The chapter comprises six sections. All students were first interviewed in 2017. The first five sections tell the university narrative of each student. Each starts with the student's background and how they accessed university. Thereafter an account of their university participation is provided, describing first the material conditions shaping their university participation and then their academic and non-academic engagement. This is followed by a discussion about whether and how they moved on from university. At the end of each narrative we summarise which conversion factors intersected to result in the achievement of learning outcomes, that is functionings and underlying capabilities. In the sixth and final section we offer conclusions about what the five life histories tell us, both when read individually and when considered in the context of what we know about the whole group.

Mashudu: Metro

Life before university

Mashudu was born in 1998 and brought up by her parents alongside four siblings in Makwarani village in the Vhembe district of Limpopo. Her mother, a teacher, was unemployed at the time we first interviewed Mashudu, while her father worked as an agricultural advisor. Unlike any of the other Miratho students, both her parents had university degrees and one brother was studying at Mangosuthu University of Technology, while her other brother had not been to university but was working. Her twin sisters were in grade 9.

Mashudu's family was 'very supportive' of her academic development and it was always expected that she would go to university. Unusually, she started thinking about going very early at age eight because her cousin who had gone to Metro told her about university and encouraged her to work hard. Mashudu's 'deep village' was very remote, with no tarred roads and erratic access to public transport. Social problems such as substance abuse and teenage pregnancy were common. It was also common for successful people from her village to move away, so that young people had few role models, and few people from the village went to university.

Mashudu described her high school, Tshivhase Senior Secondary School (quintile 2), as 'one of the best schools in the province'. Her parents chose the school for its reputation. There were good teachers, a laboratory, a library and all the required books, and Mashudu was part of the choir. There were about 70 learners in her class. The school was far from home and so Mashudu had lived with her grandmother and brother who was also in high school at the time. She worked hard and passed her grade 12

exams with excellent grades²⁵ (five As and two Bs). Metro University representatives had been to Country University for an open day and Mashudu's school had taken their students there.

University access

In 2015 Mashudu obtained a Metro University application form from a former student at her school who was studying there and she applied for a Bachelor of Pharmacy. She was accepted and moved from Limpopo to Gauteng to start her studies in 2016. She found the transition from rural to urban life relatively smooth, as she had often visited her cousin-sister who had studied in Johannesburg years earlier. Mashudu had initially wanted to study chemistry and sought advice from a doctor who had advised her to study pharmacy. She looked up information on pharmacy on the internet using her smart phone and realised that it was what she wanted. Her excellent grades made her eligible for a Metro merit bursary that covered part of the registration fee and 10% of first-year tuition in 2016. Her mother paid for the application fee and the balance of the registration fees. Her parents offered relative financial stability (despite her mother being unemployed). Mashudu was the third student from her village to go to Metro in about thirty years (other young people like her brother had gone to other, less elite universities).

The conversion factors of geography and community are relevant. Coming from a small rural village in Limpopo where few young people went to university could have had a negative effect. However, this was countered by other conversion factors: comparatively good schooling, personal attributes (her hard work), a family where both parents had gone to university and were able to provide encouragement and some financial support. Mashudu identified her parents as her major advantage, because, unlike other young people from her village, they helped her 'see out of the village' and aspire for a life impossible to attain without a university degree. Mashudu thus had a relatively smooth access trajectory because conversion factors intersected to result in more enabling than constraining effects. She was therefore able to achieve full access – being admitted to and registered in a university and a programme of her choice. This enabled her achievement of the capability for inclusion and participation under less precarious circumstances than most Miratho students.

University participation

During her first (2016) and second (2017) years of university, Mashudu experienced considerable emotional distress because she did not have secure funding. She asked for and eventually received assistance from the health sciences faculty to pay 50% of her outstanding first-year tuition fees. This allowed her to qualify for a registration fee waiver in her second year, but she still owed Metro ZAR 267 000 for tuition fees and on-campus accommodation by the end of that year. She worried about this constantly: 'I would say the worst challenge was to worry about my fees every single day I'm here.' Her father took out a loan of ZAR 135 000 to cover part of her debt. Money for merit awards (ZAR 88 000) and 'donations' (about ZAR 20 000) from 'knocking on doors'

25 The grading system used in South African schools is: A or Level 7: 80–100% (outstanding achievement); B or Level 6: 70–79%; (meritorious achievement); C or Level 5: 60–69% (substantial achievement); D or Level 4: 50–59% (moderate achievement); E or Level 3: 40–49% (adequate achievement); F or Level 2: 30–39% (elementary achievement); Fail: Level 1: 0–29% (not achieved).

and getting government 'gap' funding made a big difference. In her third year (2018) she applied for and received a bursary from a pharmaceutical company through the Tomorrow Trust which acts as a broker to secure funding for students.

With secure funding, Mashudu directed her energy towards doing well academically. One academic achievement stands out. In 2018, Mashudu was tasked with a research group assignment to develop a business plan for a pharmaceutical company. The business idea stemmed from her past observations of patients in public hospitals in Venda receiving insulin pens. She had wondered how, with long commutes in minibus taxis, patients were maintaining the 'cold chain' (keeping the medicine below required temperature for efficacy) both on the journey home and in rural villages where there is commonly no electricity and hence no refrigeration. Her research group decided to develop a special portable cooling package for insulin pens, where solar power could also keep the medication at the right temperature at home. The group came first in class for this idea, presenting it to the CEO of Aspen, a South African pharmaceutical company. After that, the group started thinking about establishing a company ('Green Freeze') to specialise in manufacturing prototypes. They also approached the head of department for funding for material supplies and with plans to work with Metro's department of engineering. Mashudu believed she had gained entrepreneurial skills from this project, which she said Metro encourages in pharmacy students.

The Tomorrow Trust was crucial in providing ongoing support through study skills workshops, and from these Mashudu learned the value of adjusting her study practices, for example, where, how and with whom she studied. She also learned how to be more strategic, that is, how to prepare for tests and exams by not trying to learn everything, but rather 'learning to identify what is important'. She learned from these workshops that she is a 'visual' learner and that using highlighter pens and summaries of her own writing helped her study well. For subjects that she found particularly challenging, she had extra classes with a tutor, which the Tomorrow Trust had also organised.

In addition, Mashudu had the support of lecturers who recognised her potential. She recalls one lecturer sending her an email when he noticed a drop in her grades after a test. She went to see him and he gave her helpful formative feedback, which reassured her that there were lecturers who cared about her success. After four years of study at Metro, at the end of 2019, she completed her bachelor's degree with what she described as 'very average grades' (50–60%), and she had no outstanding fees to cover.

Outside academic activities, she became involved with an organisation supporting Metro students from Venda to feel they belong. She thinks coming from a rural area makes navigating urban university life challenging: 'Coming from a rural area you don't know how to take an Uber for example, to find your way around.' Without people from Venda who understand her because they are more like her than the 'typical' Metro student, Mashudu did not think she would have managed in her first year. She did some volunteer work for a clinic for homeless people, taught science and volunteered in a feeding scheme at a secondary school in Johannesburg. She thought it was important to give back to others. She appreciated encountering people from different cultural groups and had learned a new language (isiZulu). She would have liked to have been involved in more of these kinds of extra-curricular activities at university.

The conversion factors that enabled Mashudu's meaningful engagement in both academic and social aspects of university life were: sufficient funding (from parents,

the Metro merit bursary, the faculty discount, the bursary from the Tomorrow Trust); information and support (Tomorrow Trust and her parents); and her personal attributes (enjoying her subject and working hard). Her case reminds us that the process of navigating through university and engaging deeply with one's study subject or becoming a full member of university is complex and requires more than an adequate threshold of financial resources. Mashudu's case also reminds us that ongoing information and academic support opens up students' opportunities to be more engaged members of their universities. This includes volunteering, joining other student-led campus clubs or initiatives, taking up campus jobs, or being proactive in setting achievable academic goals that may influence opportunities for further study and employment.

Overall, her university participation enabled the achievement of these functionings: being an epistemic contributor, planning her life, navigating university and society, and being included and participating in university. Initially, her functioning to deal with stress and worry was not achieved as she worried about funding, but as her circumstances improved she strengthened this capability and functioning. She also used the capability for ubuntu and the corresponding functioning, doing volunteer work that centred on improving the well-being of others. Her narrative functioning was advanced through being able to tell her story in the Miratho interviews.

Moving on from university

In 2020 Mashudu started a compulsory internship at a private hospital in Johannesburg. She felt that she was being 'thrown into the deep end' but learned to be independent and 'deal with real life patients'. She enjoyed her work experience in the pharmaceutical retail sector, completed her internship at the end of 2020 and passed the required exams. In 2021 she began her community service year. After this, the South African Pharmacy Council will accredit her as a qualified pharmacist.

In hindsight, she thought of Metro as 'one of the best universities in the country'. It had adequate facilities and 'connections' and alumni were regularly invited to talk to students about careers and work. They had workshops where students were exposed to the pharmacy industry 'as a whole and not just as a pharmacist working in a pharmacy'. Thus, being a Metro graduate was advantageous and Mashudu was convinced that 'having the Metro name on your CV opens a lot of doors'.

However, Metro did not provide much support for job hunting. She had found out about Indeed, an online job search website, from fellow graduates and submitted her CV, was shortlisted, interviewed and offered the internship – all of which she says Metro had not assisted her with (e.g. providing information on how to go about applying for jobs, or writing a CV).

Mashudu wants her younger twin sisters to have a better university experience than she did, and to make sure that their expectations are realistic by telling them about 'the bad things and how really challenging it was'. She thought that most of what she had heard about university before she got there was too focused on the positive aspects.

Her transition from university into well-paid permanent employment looks promising because conversion factors intersected to result in her achievement of the functioning for future work/study. These are: obtaining a Bachelor of Pharmacy degree, university reputation, information and support (from peers), personal characteristics, and labour market opportunities, as well as having no debt.

Sonto: City

Life before university

Sonto was born in 1997 and grew up in White City Jabavu, in the sprawling township of Soweto. She lived with her mother and two younger brothers. Sonto described her township as 'a very rough community [with] a lot of crime'. She came from a polygamous family (her estranged father had several wives and 25 children) in which women were expected to 'look for a job or go find a husband'. However, Sonto's mother, who worked for African Children's Feeding Scheme, was highly supportive of Sonto's university aspirations, although her step-father who worked in construction was not.

Sonto went to the Pace Commercial Secondary School (quintile 3) which she described as 'like any other in the townships'. She walked a total of four hours to and from school every day. It was a large school with about 50 pupils per class. Pupils had to 'push' themselves at the school if they wanted to succeed. The school provided adequate textbooks and had good teachers, but did not offer any extra-curricular activities, and the computer laboratory was only for students studying computers. She had to push herself in high school because teachers seemed unconcerned about the personal problems of learners which can negatively affect academic performance. She worked hard: in grade 12 she studied at school until 17:00 and sometimes walked home alone in the dark, which was 'scary'. She passed her grade 12 exams in 2015 with good grades (two As, two Bs, two Cs, one E). Despite not having any information about university, Sonto had always wanted to go since she learned about it on television.

University access

Sonto's first visit to a university campus was in 2015 to City when she submitted an application form, which she had obtained from 'some guy' she met in grade 12. In selecting the university, Sonto decided to 'play it safe' by choosing City rather than Metro which she had heard was 'academically strict'. This can be seen as the development of an adaptive preference: she chose City in order to mitigate the risk of academic failure, and not necessarily because she thought it was better. Sonto was 'very passionate about people and the community' and had dreamed of studying law, which she thought would enable her to do work that uplifts her community. However, her high school specialised in commerce, so Sonto did not qualify for a law degree because she did not have the right combination of subjects. She instead applied for a BA in politics that she began in 2016. Thusanani Foundation paid her registration fee and initially funded her tuition fees (± ZAR 35 000 per annum in 2016), so she had mistakenly not applied for NSFAS, although she was eligible to do so.

Overall, Sonto's access pathway was relatively uncomplicated, although most conversion factors intersected in a way that would typically result in constraining effects. She came from a 'rough' township, had not secured funding, her parents' had low-paid jobs, and her school did not provide much learner support. Like many of the Miratho students, Sonto was the first in family to go to university and therefore had no second-hand higher education experiences to draw on to assist her on how to apply for university. Despite this, her access trajectory was smooth because of other conversion factors that worked in her favour. First, her personal attitude, drive and aspiration for higher education were important. She believed that 'you have to push yourself individually so that you can be where you want to be in life'. Second, the financial assistance

from the Thusanani Foundation that paid for her registration fees was crucial. Third, her mother's encouragement had a positive impact.

Therefore, we can see that Sonto successfully converted the relatively few resources available to her by achieving access and enrolling for a programme that she was interested in (although it was not her first choice), and at a university that she had chosen (although this can be seen as an adaptive preference), albeit under non-ideal and precarious circumstances.

University participation

Upon her arrival at City in 2016, Sonto was conscious that coming from a township made her different from someone from the suburbs who is used to having nice clothes and takes for granted the fact that they will eat every day. The idea of others guessing where she came from made her 'shrink'. She was also not confident in English (unlike 'suburban' students) because she had been taught in isiZulu at school.

Throughout her time at university, Sonto lived at home and commuted daily to campus, which was challenging because travel was expensive. She used minibus taxis (on occasion walking four hours to and from university when she could not afford taxi fare, or skipping classes). There were often big gaps in the timetable (classes could be from 7 am to 7 pm); at the worst of times, she had to get up at 4 am and/or walk home at night, which was dangerous. Although she knew that it would have helped to be a campus resident, she could not afford the cost without a bursary.

Especially in her first year (2016) it was difficult for Sonto to understand the white lecturers' accents and she was often 'in the dark'. However, attending tutorials helped her to get a fuller picture of what was being taught in class. It was a relief for her to learn from the Miratho photovoice workshops that this experience was the same for other students. She struggled with typing ten-page assignments because she had to do all the research on her own, did not have a computer and spent much time travelling to and from campus. She complained that, because lecturers did not comment on her work, she never knew what to do to improve her grades. For most of her time at university, she studied by herself, and occasionally consulted her lecturers, although they were often not in the office when they said they would be and she had no other engagement with them out of class. However, she brought with her into university the self-reliant approach to studying she had had to develop in school.

Sonto enjoyed her studies. In her first year (2016) Sociology was her favourite module because it explained how society or communities shape individuals, and it made her more questioning. Her second year (2017) was more challenging than the first because lecturers expected students to read more widely. By her third year (2018) she found difficult the amount she had to learn without access to all the study material. She managed to study by being part of a large (20–27) group of students who helped each other by sharing textbooks, and she passed all her modules.

According to Sonto, a combination of an education system that does not teach students like her to be confident and to participate, together with huge 'social' challenges, makes a township student different from the 'typical' university student. However, coming to City did not make her feel disadvantaged, nor did she feel discriminated against, but coming from a township, and residing off campus presented additional challenges to her participation. Unlike most students in the Miratho group, Sonto said that she did not have to study hard to pass all of her modules.

For leisure, she read novels or watched films. She did not participate in campus activities but was ‘fully’ involved in the #FeesMustFall protests. She said it had been important for her to participate in the protests because without access to funding that does not have to be repaid, black people are trapped in a cycle of poverty. Sonto was a photovoice participant. She titled her story ‘The rise of a new sun’ with photographs that show her moving from the dream of acceptance at university and new opportunities, through hard times and loneliness, to flourishing despite the challenges: ‘I am still breathing, still dreaming and working towards being in a better place.’

Sonto described her university journey as an ‘amazing experience’. It gave her confidence and ‘made everything seem possible’. It also made her see the world differently. For example, what she learned from her Sociology modules made her understand how life is structured for people, it taught her about Black Consciousness, and made her a feminist.

Sonto’s personal attributes, that is, her determination to succeed and her academic talent, helped her convert limited resources (she did not secure any funding during her time at university) into meaningful academic participation. While her mother had always encouraged her, her stepfather called City a ‘fake’ university. Sonto was undeterred by his discouragement. She had focused instead on not disappointing her mother’s expectation that she would get a degree, get a good job, and lift her family out of poverty.

Sonto figured out how to navigate the university system and successfully completed her degree in 2018 with good enough grades to qualify for postgraduate study (i.e. at least 65% average). Through her involvement in the photovoice project she had the opportunity to tell her university story and to be heard, and her degree knowledge led to her seeing the world and her position within it in a different light. This means that she achieved the functionings of telling her story and of being an epistemic contributor. However, she did not fully achieve the capability and corresponding functionings for inclusion and participation, because she could not always participate fully in processes of learning due to material constraints. Nor was she able to achieve freedom from stress and worry, or the freedom to plan her life.

Moving on from university

In 2019 Sonto sought help from her department regarding funding and support for further study and had been assisted to apply for an honours degree. She was accepted for honours in sociology at City University but, due to her outstanding fees of over ZAR 80 000, she was not allowed to register or access her academic record and degree certificate. Sonto launched a GoFundMe account on Facebook to try to raise funds, but lost hope that it would get anywhere.

While Sonto was aware that City has a good reputation among employers, she believes one’s university makes no difference. Instead she was fatalistic: ‘If it’s your time, it’s your time.’ Sonto has been actively job hunting since she graduated. Despite growing weary of being an unemployed graduate, she is determined that she will ‘get through it’. She sometimes feels that planning has little value because much of what she planned for has not materialised: ‘I do have things that I want to do. But I feel like I should just let life show me the way.’ She searches for jobs online and has often reached out to the Miratho research team for advice. People have offered Sonto bits of work like transcribing voice recordings, and she acknowledges the importance of having access

to such networks. Unfortunately, none has led to full-time employment opportunities in her field of study.

At the time of the last interview in 2020, Sonto was volunteering at a non-profit organisation (NPO) that does work around mental health. This was inspired by her diagnosis with bipolar disorder in 2019. The NPO was just getting off the ground and they were looking for sponsorship for a venue so people could meet and talk in a safe space. Sonto thinks it is important that people become educated about mental health. Based on correspondence we had with her in 2021, we know that Sonto was still living at home with her mother and her three-year-old daughter. Sonto wants a better life for her family and she had hoped that getting a university degree would help her achieve this because it would enable her to find a decent job. She said: 'I feel like, there's a lot that I have to do, that I need to do for my family. But I'm failing.'

Without her degree certificate, Sonto cannot convert her completion of the degree into the achievement of the functioning of future work/study. We do, however, see her exercising the ubuntu functioning of connection to and concern for the well-being of others, which has sustained her.

Aphiwe: Provincial

Life before university

Aphiwe was born in 1997 and raised with three younger siblings by her mother in Sterkspruit, a rural town in the Joe Gqabi district of the Eastern Cape. Aphiwe described her village as 'undeveloped because many of the youth are not educated' and there was substance abuse. Only a few young people from her village have been to university. Aphiwe's parents were separated and her father did not contribute financially. Because her mother was unemployed, Aphiwe's family relied on a government social grant. Despite being concerned about finances, Aphiwe's mother encouraged her to study hard during high school so that she could go to university – her mother did all the household chores so that Aphiwe could concentrate on her schoolwork.

Aphiwe went to a quintile 1 school, St Teresa Combined School. Despite the school being under-resourced with no computer laboratory and insufficient textbooks (five learners would sometimes share a book), the teachers were 'patient' and helpful, especially to grade 12 students. Her grades dropped due to personal reasons in grade 11, and in grade 12 she was, she said, 'lazy'. Despite this she passed her grade 12 exams with some good grades (three Bs, one C, two Ds, one E). A few other pupils from her school also achieved bachelor passes.

University access

In 2015, a teacher encouraged Aphiwe to apply to university and gave her the Provincial application form. The Thusanani Foundation visited her school and spoke about university. When Aphiwe got her grade 12 results she called the Foundation and explained that she was unable to fund her studies, and they had assisted her. Aphiwe's grades were too low, however, to meet the minimum required admission points for the programmes she had wanted to study (medicine, biochemistry or forensic science). She settled for a BE (majoring in English and Geography) and started her first year at Provincial University in 2016.

The access conversion factors influencing this outcome intersected complicatedly. Despite financial challenges, Aphiwe's mother encouraged her to work hard and go to university, but could not provide academic advice. Although the rural geography and 'undeveloped' community she came from, which 'lacked education', were challenging conversion factors, Aphiwe's 'strict' mother countered these by ensuring that she studied rather than playing in the streets. However, despite her mother's efforts, Aphiwe joined 'social networks' and did not study hard. Despite completing grade 12 with a bachelor pass, she did not qualify for the degrees she had wanted to pursue, so she 'just applied to university for the sake of applying'.

University access was therefore achieved within constrained circumstances shaped by five intersecting conversion factors: 1) significant others – Aphiwe's mother who pushed her to study; 2) information and support – the teacher who provided information on the application procedures for Provincial; 3) funding – the Thusanani Foundation paid for registration fees; 4) community – typically young people do not go to university; and, 5) personal characteristics – although she was lazy, she still achieved a bachelor pass.

University participation

In 2016 and 2017 the Thusanani Foundation paid for Aphiwe's tuition and accommodation, but not any other expenses. She did not apply for or secure funding for the first two years at university. Unlike most Miratho students who approached their studies with hard work and commitment, Aphiwe entered university without real commitment. At the Imagined Futures workshop (18 May 2019), she admitted: 'Let me just confess something. Ever since I was a first-year, I was never serious about books. I neglected everything academic.' In addition, she did not know how to use computers when she got to university and struggled with typing and writing essays in her first year: 'I would miss assignment submissions because I was slow with typing.' Her lack of exposure to scientific equipment was also an obstacle to becoming a confident member of the university: 'The first challenge was that of me not being able to adapt to the technical world of the university.' She was 'not passionate' and 'motivated to study', was 'not enjoying any of this' and sometimes she 'would skip classes, not study for tests'.

Aphiwe soon realised that university differs from school and that success is shaped by how fast you can adapt, and that this is easier for students who are familiar with computers, have used microscopes at school, and so on. However, this realisation did not translate into significant change in how she studied in her second year (2017). Aphiwe tried to work out which questions would appear in tests and studied these with peers. From the modules she took for her BEd degree, she learned the most from Sign Language, but had applied rote learning techniques because it was 'a lot of work, I hate it, I fight it'. Instead, she enjoyed subjects like Zoology, even if Zoology is a 'huge book'.

It took time for Aphiwe to acknowledge that she must work much harder to improve her chances of completing the degree, and that both her attitude and study approach needed adjusting. By her third year (2018) she understood that 'it's the effort you put on your work that counts' and said this again in her fourth year (2019); by then she was retaking Zoology after failing it for the second time. She had slowly come to understand that in Zoology there is theory which requires students to 'go beyond the content', and that it was important to work out how the content is relevant to the wider world, for

example, to realise that Zoology is relevant for understanding the effect of parasites on the body, or why vaccination is important. She came to understand why doing well in modules like Zoology required her to read widely, and not just rely on the lectures.

We might assume that not having funding in her first two years might have affected Aphiwe's focus on academic work, yet there was little change even when she had secured NSFAS in her third year (2018). This covered tuition fees, a textbook allowance (used to buy a laptop), and food and accommodation, so she did not have to worry about finances. Although she thought books and other study material were vital too, she worked around this by sharing these resources with fellow students. This is why she found it important 'to make friends with people you are studying with'. She had not needed money for transport because she lived about five kilometres from the university and walked to and from campus. Because of this, she was sometimes able to send small amounts of money from her textbook allowance to her mother.

While at Provincial, she had failed two out of six modules in her first year (2016) and failed Zoology and both her majors in her second year (2017). In her third year, she replaced English with EBUS (Economics and Business Studies) as one of her majors, and had to study the first year and second year work for EBUS simultaneously (in 2018). Aphiwe's academic performance started to improve only late in her fourth year (2019), when she finally passed all her modules, including Zoology. Seeing others around her completing their degrees made Aphiwe realise that she needed to push herself to finish her degree, even though she had not chosen it. In her fifth year (2020) she was busy with Teaching Practice modules.

Aphiwe took part in the photovoice project, calling her story 'When life throws you lemons...' with photographs illustrating her acceptance at university, followed by 'rejection' (no place in a campus residence, no NSFAS funding), financial struggles, and stress. She then worked out how to apply to NSFAS online, while the help and support from Miratho and the Thusanani Foundation made a tremendous difference in her story: 'They brought light into my life.'

In her spare time she watched films, and slept a lot at weekends. She had taken part in beauty pageants in the first years of university, but gave this up. She had not been in favour of student protests because they had prevented her from attending classes. Although she had friends who she could turn to for advice she did not want others to see her 'crying and depressed' because 'I don't like people to see me as weak'. Overall, she did not enjoy her degree and did not look forward to being a teacher. Despite her negative university experience, she was grateful for the chance because she felt being at university had taught her to value other people (the capability and functioning for ubuntu), to be more focused, and to work hard.

We can therefore summarise from Aphiwe's story that three conversion factors intersected to limit her meaningful participation in university at the academic level. These were her personal attitude (including learning disposition and lack of hard work in the first years of university), schooling effects (on approaches to university learning and on use of technology for learning), and NSFAS funding. Although the funding enabled her fuller inclusion and participation in that she could afford more study materials, she could not fully convert the other resources into the functioning of being an epistemic contributor. However, over time, this capability was being developed incrementally. Her narrative functioning was well developed, and her emotional balance capability and achieved functioning strengthened over time. She also got better, with

help, at navigating university systems. She did little planning for the future, beyond planning to not stay in teaching.

Moving on from university

When we last spoke to Aphiwe in 2020, she had not yet obtained her degree as she still needed to complete practical teaching modules. If she passed all modules she would obtain her degree by the end of 2021, after six years of study. In 2021 Aphiwe was left still with one teaching portfolio to submit before completing her degree. The main conversion factor that constrained her moving on was that she had not yet completed her degree. She had therefore not yet achieved the functioning of future work/study.

Madoda: Rural

Life before university

Madoda was born in 1993 and grew up with his family (father, stepmother, an older brother and sister, and a nephew) in Lusikisiki, a rural village in the OR Tambo district in the Eastern Cape. His mother had died in 2009. His father was a bricklayer and worked as a mediator, settling disputes in the community. His stepmother was unemployed, his brother was a firefighter, and his sister was a road cleaner. His nephew was in grade 8.

Madoda went to Hillbrow Senior Secondary School (quintile 3) and completed grade 12 in 2013. Because the school was far from his home, Madoda rented a room 25 minutes away from school. Although there were nights he slept 'without eating', he worked hard and enjoyed high school. Textbooks were free and there was a science laboratory, although it was not used and did not have computers. There were about 80 pupils in Madoda's class. Although most of his teachers liked and encouraged him to work hard, they were sometimes too tired to explain work to learners or did not understand learners' questions. Through a bursary from a mining company in grade 12, Madoda attended extra lessons during weekends and holidays at a nearby college. The company sponsored pupils intending to study mechanical and chemical engineering. Despite repeating grade 12 in the hope of getting better grades, he did not and he passed with a C average.

University access

In 2014 Madoda applied to a university of technology, but did not meet the admission requirements. He then applied to Rural University and was accepted in 2015, making him the first in his family to go to university. His family's financial situation was precarious because his father did not always have work and so Madoda struggled to get money to register. Although his parents wanted him to give up the idea of university, he applied for and secured a bursary from the NSF, with assistance from the Thusanani Foundation.

While some conversion factors (money, schooling) had a constraining effect, others (personal characteristics, significant others in the form of the Thusanani Foundation, and encouraging teachers) had an enabling effect. Therefore, Madoda was able to convert these resources into achieving the broad functioning of access, albeit under non-ideal circumstances. He had wanted to enrol for a degree in civil engineering but, because of his low points, registered for a diploma in civil engineering at a satellite campus of Rural University, with the intention to continue to a BTech and then a degree.

University participation

While his family had no information about university and were initially discouraging, they eventually supported and motivated him. A pastor, who had encouraged him not to get distracted, advised Madoda 'just to focus on studies, and other things must melt away'. He was undeterred by having fewer material resources than other students, and he developed a strong academic disposition. Madoda sometimes sent money home to his family from his NSF bursary. He lived in a university residence, unlike most Miratho students, and was part of a study group of nine students. He had found university very difficult at first, feeling that students like him from rural areas would always lag behind 'those guys from urban areas' in academic performance. Nonetheless, he worked hard and other students turned to him for help.

Madoda felt that most of his lecturers, especially his head of department, cared about students' success and were supportive and willing to help. They encouraged both class participation and going for consultations, and Madoda did both. His study programme was full of modules from which he learned about procedures, practising calculations and 'study by heart', although he liked to learn by explaining things to other students. He felt that students learned from each other, as much as, or more than, from their lecturers. The students also organised group studies and mostly communicated in isiXhosa. They read books and watched relevant YouTube videos using the department's computer laboratory. He felt included in teaching and learning processes and had opportunities to give and receive epistemic material.

Applying theoretical knowledge to his Construction Materials module occurred during his work placement in his fourth and final year of study (2018). Ideally, students went to different companies for exposure to diverse construction sites but, due to a shortage of companies, students continued at the same company. Each of Madoda's work experience internships lasted six months and both took place at Green Acres, a shopping mall in Gqeberha. The internships centred on constructing a new access road. Madoda learned how to supervise other people. 'Working as a civil engineer instructing people', was the most important learning from a module on management: leadership skills and how to control, motivate, communicate with and treat people. Although he found it challenging, he followed the instructions he received and encouraged workers to apply what he asked of them. None of his lecturers made any site visits (as they ought to have done), but relied on updates from students' reports faxed every three months.

Because he was focused on studying, Madoda did not participate in sport as much as he had hoped. He enjoyed helping young people from his community with maths when he had time during the holidays. He was known in the community as someone who studied at university. He felt he had changed and developed new aspirations: 'Now at least I have dreams. To have my own things as a grown man. And I want to be independent, yes. So not to depend to my father.' His dream was to be a structural engineer in 'a huge company' and possibly work abroad, 'even Dubai'. Madoda completed his civil engineering studies at the end of 2018, passing his diploma with good grades (eight distinctions out of 26 modules).

Through his university participation, Madoda developed the capabilities and corresponding functionings of inclusion and participation, epistemic contribution, practical reason, navigation and ubuntu. His hard work and relationships with his pastor, friends at university and one inspiring lecturer had a positive impact. He appeared to

have emotional balance in his life. Other enabling conversion factors are that he had funding throughout his studies, and that he had access to technology (internet, but no laptop) which also enabled his inclusion and participation in processes of learning.

Moving on from university

Between 2019 and 2020 Madoda was unemployed and looking for work. He had left his CV at several construction projects near his home and surrounding areas, as well as on internet platforms such as LinkedIn. He had been doing part-time jobs such as invigilating exams at a further education college and working as a teaching assistant or assisting clerks in the dean's office at Rural University. He attributed his unemployment to 'a lot of politics' where 'big guys' who employ most people in the construction industry control everything. Because he lacked connections, Madoda felt that he would not get employed and would get 'left behind'. He therefore applied for a Bachelor of Medicine and Bachelor of Surgery at three universities. He believed that medicine offered better employment prospects than engineering because the government, not private companies, were the largest employer in the field. He 'researched' which qualification would enable him to 'work and get money for the rest of my life'. He thought having two different qualifications would give him 'many keys to open the door' to employment. However, in 2021 he secured a one-year contract on a road construction project near his home and was busy with that.

Many conversion factors were instrumental for him to achieve the functioning (albeit not secure) of future work/study. His personal characteristics of hard work and diligence, obtaining the degree, and access to technology to apply for jobs were crucial, while the subject field of engineering and labour market opportunities in his home province enabled him to secure contract employment.

Rimisa: Country

Life before university

Rimisa was born in 1997 in a rural village in the Vhembe district of Limpopo. He grew up in a large family with 11 siblings. Rimisa's mother died when he was a child. He was not close to his father who had spent most of Rimisa's life working in Johannesburg but was home because of an illness when we first interviewed Rimisa in 2017. The family relied on his father's monthly disability employment benefit of ZAR 5 000.

Rimisa went to Hanyani Secondary School (quintile 2). In grade 12 he preferred to spend most of his time at school reading to avoid 'unpleasant' situations at home. 'A lot' of pupils from Rimisa's school went to university. He worked hard throughout high school and achieved good grades (two As, two Bs, three Cs). Rimisa's high school teachers played a significant role in his academic life and encouraged him to work hard and go to university. His life orientation teacher invited universities and colleges in Limpopo to visit the school to provide information and bursary application forms to grade 12 learners. In contrast, his family did not think it was worthwhile for him to aspire to university because they knew they would not be able to pay for tuition.

University access

Although Rimisa knew he wanted to go to university from grade 8, he lacked access to

the internet to apply to different universities and for bursaries. He also lacked money for university application fees, and applied to Country University only after his high school teacher gave him the ZAR 100 application fee; it was 'the cheapest university'. The teacher's assistance made up for the lack of support from his family for whom it was 'difficult to understand my situation. They didn't know anything about application forms'. Because most people in Rimisa's village were nurses and teachers, he had wanted to be a nurse but he could not register for this or for teaching because both courses were full. He was offered a Bachelor in Indigenous Knowledge Systems instead, which he accepted, despite not knowing anything about it. Thus, in 2016, Rimisa became the first in his family to go to university.

For Rimisa, university access was achieved under constrained circumstances because he neither freely chose Country nor to study Indigenous Knowledge Systems. His hard-working disposition and determination to pursue his aspirations led him to apply for university despite being 'rejected' by Country three times. The Thusanani Foundation and a relative paid his registration fees in his first year (2016). We therefore see how two conversion factors (personal characteristics, significant others) intersected to enable his access, despite the intersection of two other conversion factors (a lack of support from immediate family, no secure funding) which nearly disabled it.

University participation

Rimisa's high school teachers paid for his application fee and gave him money for food and clothes during his first two years (2016–2017). In 2018 he secured NSFAS funding and became less dependent on them for financial support, but he maintained these relationships.

Although he was 'clueless' about his study programme at first, he grew to love it and he worked hard. He particularly enjoyed learning about indigenous health care. His African Health Care lecturer took a research-based approach to teaching: students were given a research topic in class with guidelines about using the library, anthropology department and internet for information. They sometimes interviewed traditional healers, and Rimisa did this in his home language. Findings were discussed in class. Rimisa thought this the right approach for the course and felt he was part of producing new knowledge. Students were also expected to work in groups and present in class. He attended all lectures and kept the handouts he got from class.

When preparing for tests or exams, he would write notes, and first read through them 'as if I am reading a newspaper' to familiarise himself with the content. Thereafter, he would read in depth. Following this he would draft his own test questions, and then he would write down the answers before going through the questions again, answering them orally. He did not like to work in groups, although he saw the benefits of doing so. He consciously 'associated' with lecturers who regarded him as 'one of their best students'. He also had five friends whom he described as hard working, encouraging, and able to distinguish between the 'right' and 'wrong' people to associate with at university.

Rimisa worked very hard to achieve as many distinctions as possible by the time he completed his studies. This was part of his strategy to win university merit awards to help him pay off tuition fee debt from his first two years at university. He was also motivated by the annual Thusanani Foundation award ceremonies, where students' achievements were celebrated and rewarded (he received a tablet in 2018 for being one of the top achievers).

Rimisa's study programme included a research module that culminated in a thesis which had to be submitted as a requirement to complete the four-year (integrated honours) degree. His research explored the role of indigenous knowledge for sustainable livelihoods. He conducted a qualitative study at a local village in his fourth and final year (2019) and obtained a B (over 70%) for the thesis. Rimisa completed his degree in 2020. He is the only student of the 66 we interviewed who passed his degree cum laude. He had developed the ambitious academic aspiration to have a PhD at 27.

Out of class, Rimisa volunteered as a class representative. His job consisted mostly of liaising between students and lecturers about the availability of lecture halls. Because there was a shortage of venues for teaching, class representatives had to arrive early and look for available rooms, book them and let students and lecturers know. He also volunteered at the Community Engagement and Research Centre at Country, for which he earned a small stipend. He was a photovoice participant, calling his story: 'The difference between "here" and "there" is courage.' Photographs captured his initial confusion, his challenges regarding accommodation and navigating university, the help he received from others, the resolution of his financial problems, and his other-regarding future plans to help others avoid the struggle he had experienced.

From Rimisa's story, we see how four conversion factors intersected and stand out as the main determinants for being able to convert his resources into capability-enhancing participation at university, in both the academic and social spheres. These are funding, relationships with significant others, personal characteristics – including aspirations and hard work and interest in the degree subject, and good-quality teaching and learning arrangements. Rimisa achieved the functionings of epistemic contribution (through research), navigation (aiming for distinctions to pay off fees, developing relationship with lecturers because he realised this would help him succeed, volunteering as a class representative to build other skills and be more visible at university), and inclusion and participation. He also achieved narrative functioning (through his involvement in photovoice) and practical reason functioning (which we see in how he articulates a vision for his future and a good life). The functioning of ubuntu, showing care and connection to others who also cared for Rimisa's well-being, inspired his wanting to give back to his community and support the well-being of those who come from similar circumstances as his.

Moving on from university

Rimisa applied for and was accepted for a master's in African Studies at Country University in 2020 and applied for funding from the National Research Foundation. In 2021 he was working as a research assistant at Country University's community engagement directorate. He had not registered for the master's in African Studies but still intended to do so (the final grades for his thesis came late and delayed his application submission, although he has been accepted into the programme).

His four years of university had helped him gain confidence and achieve things that he could not be or do before: speak English with confidence, dress nicely, have a bank account, and be financially independent. He widened and thickened his capability set with each year of being at university, and he achieved the functioning of future work/study. He seems well on his way to achieving his aspiration of having a PhD at 27 years. He valued being at university because even if a degree may not result in employment, it helped him learn strategies to survive and to address life's challenges.

What these five life histories tell us about low-income university students

In this chapter, we presented individual student life histories of university access, participation and moving on, showing how clusters of conversion factors intersect, however differently, so that individual student's capability sets are either widened or narrowed. In all cases relationships were central and important in capability formation. Across the five student narratives, we can draw lessons about conversion factors, functionings and inequality in and through higher education. They illustrate how 'the freedom of agency that we have is inescapably qualified and constrained by the social, political, and economic opportunities that are available to us' (Sen 1999: xi–xii).

Aphiwe shows us that the main obstacles to developing a transformative relationship with knowledge and completing her degree was her personal disposition which intersected with the somewhat disengaged approaches to learning that she had developed in high school. The overall impact was thin participation that did not expand her capabilities much at first. Her university participation was characterised by a lack of interest in disciplinary knowledge in her degree, rote learning, limited classroom engagement, and techniques aimed not at gaining better understanding of her subjects but only at passing tests and exams. There is dissonance between her prior conceptions of what studying is for, or what it means to engage meaningfully in processes of learning. This reflects how difficult it can be for low-income students to take on a new identity as a university student, especially when they carry with them from school to university unhelpful approaches to learning and have not chosen their degree.

Rimisa's personal characteristics and agency towards his goals intersected with relationships with significant others, resulting in opportunities for deeper, more meaningful participation. Participation was characterised by a keen interest in disciplinary knowledge, eagerness to better understand and come to his own realisations based on this knowledge, and more engagement across different spheres of university life. Rimisa's remarkable outcomes – achieving a distinction pass in the required time and moving on to further study – shows us what can be achieved when talented and driven young people are given the opportunity to access higher education and are provided with financial and educational support. However, this individual effort on its own does not resolve social and higher education inequalities and money challenges.

Sonto's self-reliant attitude and agency and impressive navigational resources were brought to bear on the intersecting conversion factors that manifested as obstacles to her participation. Although her determination and talent were enough to widen and thicken her capability set, they could not overcome the financial barrier, which limited the extent to which her university participation enabled functioning for further study or employment. The outcome of her university education would have been better had she had access to the right information and support at the beginning of her studies so that she could apply for financial assistance from NSFAS. We are reminded why it is important for low-income students to have access to timely and accurate information about opportunities to apply for financial assistance before they enter university.

Madoda is an example of a student who converted relatively limited resources through hard work into degree completion with good grades and a thickened capability set. However, we can see that having a university degree does not readily translate into employment opportunities and secure the functioning for work because the labour

market plays a key role, especially if graduates remain in rural areas where work opportunities can be limited.

Mashudu was fortunate to have both funding and the kind of academic support she received from the Tomorrow Trust, in addition to her diligence and hard work. Without these conversion factors working together, she might not have had the opportunity to do as well as she did, or achieve the capabilities of inclusion and participation, epistemic contribution, practical reason, and future work/study as outcomes. Her story therefore reminds us that an adequate threshold of financial resources is not enough to enable students to flourish at university; they need continuous support to enable their academic and well-being achievements.

Thus, in all five life histories presented in this chapter, we see some variation in the intersection of conversion factors, resulting in different levels of achievement of key functionings (Chapter 4). At the same time, we can see how, even with hard work to make their university participation meaningful, students faced limitations in the secure development of all eight capability domains because of the obstacles caused by structural inequalities.

Reading the narratives within the broader context of what we know about the Miratho students from the previous chapters, we can see clearly that opportunities are shaped both by structures, such as socio-economic class, and by how young people are actors and agents, interacting with these structures (Walker 2020c). Within the context of our findings the narratives illustrate the idea that discussing university outcomes needs to go further than measuring student success in terms of degree completion or distinctions obtained. What matters perhaps even more is what students actually manage to do during their time at university and how this enables the achievement of valued functionings, transforms students, and prepares them for further capability expansion throughout life. The capability approach enables us to do this.

Conclusion

International literature on widening participation usually misrepresents working-class or low-income students as deficient, high risk and problematic (Crozier & Reay 2011). Our findings challenge this deficit viewpoint by capturing the aspiration, determination, agency and hard work of students like Mashudu, Sonto, Madoda, Rimisa and even Aphiwe as they negotiate structural constraints as best they can. We acknowledge that we cannot know everything about how the personal attribute of being a hard worker is formed and that the development of this is contingent on various factors including their upbringing, socio-economic status, cultural values, and so on. So, while Aphiwe could have worked harder from the beginning of her time at university, we do not support the idea that hard work and determination are the only factors that determine university success. Rather, conversion factors worked in enabling or constraining ways in each person's life to facilitate university access, participation and success. However, we have also seen how uneven the achievement of valued capabilities can be, depending on how these conversion factors intersect, and on the students' personal characteristics. We see both the power of conversion factors and persistent inequalities and the potential of individual agency.

Reading the life histories individually illustrates why and how accessing, participating in, and moving on from university can look different for individual low-income rural and township university students who nonetheless have much in common in terms of having similar socio-economic and family backgrounds and similar experiences of secondary school. Our capability-based analysis directs us to examine how clusters of material, educational, environmental, social and personal conversion factors can manifest as obstacles and opportunities for the achievement of learning outcomes for each and every student in understanding both the reproductive and transformative potential of university.

CHAPTER 9

Access, participation and moving on for low-income youth

In this book we explored the four and half year multi-method Miratho research project. The project investigated what constitutes ‘inclusive learning outcomes’ for low-income rural and township youth studying for diplomas and degrees at five South African universities, three urban and two rural. We framed the project as a contribution to southern and Africa-centred scholarship and applied Amartya Sen’s capability approach, taking it forward for this context and this group of students to make the case for a multi-dimensional, evidence and voice-informed Miratho development and evaluative Matrix. We investigated opportunities and obstacles to achieved student outcomes by mobilising a framework of key concepts: capabilities, functionings, context and conversion factors, poverty and hardship, and agency. This approach allowed us to reimagine inclusive learning outcomes to encompass the multidimensional value of a university education and a plurality of valued cognitive and non-cognitive outcomes for students whose experiences are strongly shaped by multiple hardships. Added to this, the information we gathered and that which produced the Matrix is co-constructed with interviewees and other stakeholders. In our view, a capabilitarian framework aligns well with decolonial approaches and methodologies because it does not impose one West-centric way of thinking about higher education relationships, processes and practices. In this, the domain of ubuntu is especially significant, including a cosmovision, knowledge, ontology and values that run counter to the neoliberalism currently dominating higher education: solidarity and the well-being of others in the making of oneself emerged as important from empirical data.

Based on capabilitarian theorising, secondary data, and empirical student voices, we developed a set of higher education multi-dimensional capability domains and functionings orientated to more justice and more equality for each person to have the opportunities to be and to do what they have reason to value. As we explain below, capabilities and functionings – who is able to develop them – constitute the informational basis for making judgements about justice (Sen 1999). We argued for the importance of both functionings and capabilities in our higher education space and for attention to material hardship. All this shaped our original and innovative four-dimensional Miratho Matrix (Chapter 4) for transformational higher education which pays attention to knowledge and skills, to teaching and learning and argues for how these

ought to contribute to student well-being, flourishing and agency. We take account of power and social structural conditions also shaping well-being in our Matrix. Our Matrix then is a kind of ‘social ecosystem’ (Spours 2021) that nurtures transformation, capabilities and meaningful learning.

We bear in mind, too, that ‘conversion factors are factors of justice’ (Bonvin et al. 2018: 860) (Chapter 3 and Appendix A). They enable or constrain the formation of capabilities along the three dimensions of evaluation identified by Robeyns (2017), namely (1) an individual level of achieved well-being and freedoms to achieve well-being (here we offer a capability set and a set of corresponding core functionings); (2) evaluation and assessment of social arrangements and institutions (see Appendix B and the current chapter); and (3) design of policies and practices for change. Regarding the last dimension, we do not suggest policy, but rather indicate practices for change. To this end our capability and human development approach can be used as the basis for higher education policy design locally and nationally.

Our four case-study chapters show how low-income and rurality, being black, home language, and individual attributes intersect with pedagogical arrangements and institutional ethos, shaping effective freedoms and meaningful functioning (learning) outcomes. Relationships, working positively or negatively, feature strongly and are integral to all the capability domains we have identified. As noted above, they are all relational domains comprising subsets of relational capabilities, grounded in contexts and material circumstances. We do not propose individualised and decontextualised agents but rather socially and relationally located persons and argue that the capability approach allows for this. As Longshore Smith and Seward (2009) and DeJaeghere (2020), among others, have emphasised, capabilities are socially relational and emerge dynamically and develop in the space between the person and social and economic structures of society and of higher education. Higher education has a role to play in reproducing or transforming the inequalities that a relational approach exposes. It introduces power relations and marginality and brings them into focus (DeJaeghere 2020). Longshore Smith and Seward (2009: 230) explain that, ‘power and oppression [are] constituent components of [the Miratho] capability set.’ Conversion factors and processes (the rate at which someone can convert their resources into capabilities and functionings) show how relationality, power and oppression work out in actual lives and become visible as Chapters 5 to 8 show clearly. University conditions and higher education policy ought then to enable conversion into meaningful learning outcomes.

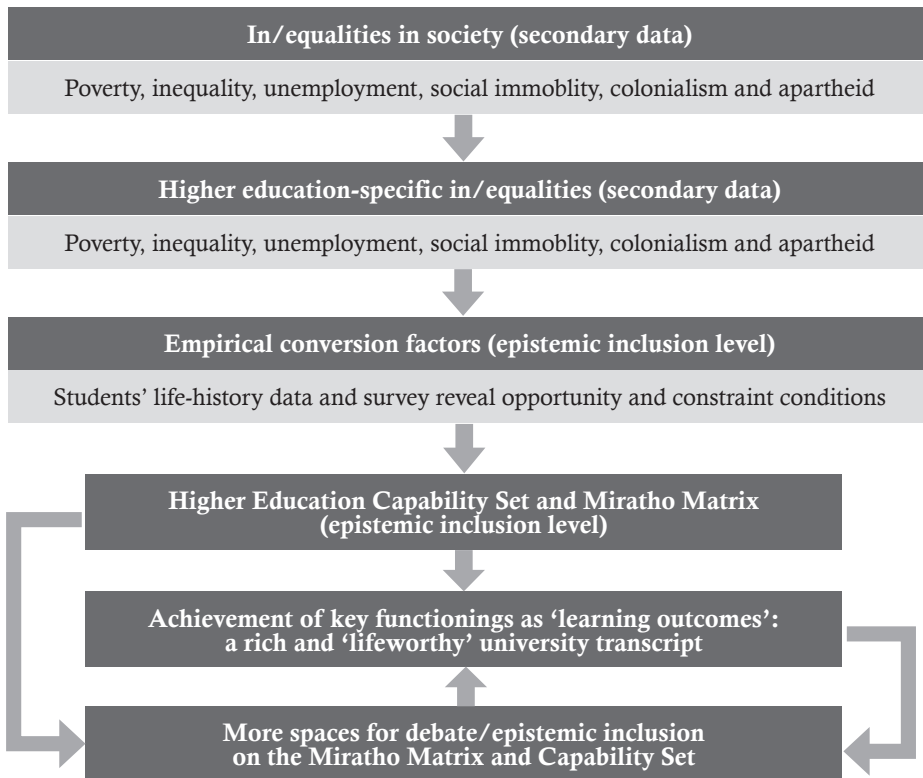
Changing the informational basis for justice judgements

Paying attention to student inequalities means then to attend to opportunities, and to education outcomes and academic achievements. Following Sen, we have gone beyond the usual configuration of learning outcomes to propose a richer informational basis for making judgements about student success in South African universities. This has happened at both the substantive and procedural level (Bonvin & Favarque 2006). At the substantive level we considered what information was important and should be included. At the procedural level we worked for a reasonably inclusive process in compiling the Matrix or information set. Thus, we have included multiple student voices over time and their lives and proposed judgements grounded in capabilities and

functionings. Sen (1990: 111) calls this ‘the territory of justice’, explaining that ‘[t]he informational basis of judgement identifies the information on which judgement is directly dependent ... [it] determines the factual territory over which considerations of justice would directly apply’. We argue for grounding judgements about opportunities, freedoms, choices and outcomes in the Miratho Matrix.

Figure 9.1 captures the process we followed in developing the Miratho Matrix as a ‘territory of justice’ and a basis for just policies and transformative practices, which foreground both student well-being and their agency. A key component, as we have emphasised, is a theoretical-empirical relational capability set and a set of core functionings, which we have justified conceptually and empirically for our context. Understanding the relevant conversion factors in society and higher education which can enable or constrain capability formation was the first point at which the process included the voices of students. In going further into the iterative process of producing a capability set we added in the voices of more stakeholders, together with those of the students. We envisage and hope for further debate about our capability-based learning outcomes as a justice-facing approach to the inequalities and transformation gaps which still feature in higher education in South Africa. While there have been real equity gains measured statistically (see Van Schalkwyk et al. 2021), substantive and sustainable equality beyond these numbers is still somewhat elusive and shifting and rather more difficult to capture numerically.

Figure 9.1: Miratho Matrix process



Practical operationalisation of ideas

The further issue to be addressed is whether the capability and functioning framework and Matrix has practical and policy purchase in real universities for real students at the current time. We think it does.

We thus offer broad suggestions to guide discussion about how an institution might measure and make judgements about whether and/or how there are inequalities across different groups of students in capabilities and functionings in the different domains. We do three things: (1) propose eight key functionings as indicators to be measured qualitatively and quantitatively; (2) sketch broad university conditions against each key functioning (Table 9.1) (these conditions would need to be evaluated); and (3) for the eight domains we have sketched ways to measure across three areas: university education, academic department and university. Across these three areas attention should be paid both to horizontal inequalities pertaining to culture and forms of belonging and to vertical inequalities associated with distribution of resources (Unterhalter et al. 2020). We also provide up to five sub-functionings which support the core functioning for that domain. For example, the core functioning of ‘being an epistemic contributor’ is supported by this set:

- Attains a threshold of academic knowledge, reasoning (argumentation) and understanding and applying of knowledge through access to higher education teaching and learning;
- contributes and receives knowledge materials (informational and interpretive) to and from the common pool of interpretive materials; shares/communicates this knowledge with others and is taken seriously in the process;
- thinks critically, taking diverse viewpoints into consideration;
- is critically aware of curriculum issues, including but not limited to decolonisation; and
- Is reasonably confident in speaking, reading and writing in English.

We do this for all the capability domains (Appendix B).

In Table 9.1 we provide an example for one functioning using only the university level to give some idea of our approach, with more detail for measuring each capability provided in Appendix B across individual, department and university domains, while attending to forms of inequalities.

Our aim in developing functionings (indicators if you will) and measurement advice is to provide initial ideas for a practical operationalisation. This leaves open considerable space for university judgements; decisions, however, would always need to be anchored by and align with the normative focus on student flourishing and the wider goal of human development (Chapter 2) and should not be hijacked by ‘skills development’.

Table 9.1: Indicative university conditions (conversion factors/dimensions of freedoms and opportunities) for all students to function well in all domains for equitable higher education

Functioning	University conditions/means to (what happens during university education experiences)
Being an epistemic contributor	Quality of curriculum design (including attention to ecology of knowledges), teaching and learning and assessment practices that build confidence, inclusion and civic participation that foster dialogic and inclusive epistemic culture and environment.
Being connected to and concerned for the well-being of others	University ethos, mission and vision embodied in everyday activities (teaching and learning, research, community engagement, administration). Valuing indigenous cosmologies.
Planning a good life	Ethos and processes that encourage aspirations, decision-making and future (good) life planning in teaching and learning, but also extra-curricular opportunities and activities.
Navigating university culture and systems	All university actors (academic and administrative) foster supportive ethos, awareness of who the students are and where they come from, support for funding applications. Make accessible information about all university services.
Telling one's own higher education story	Recognise and value students' linguistic and narrative capital and value this in university ethos and teaching and learning; genuine listening to all students.
Emotionally balanced at university, not stressed or worried	Well-being services; staff training in awareness of and empathy for emotional challenges students face.
Being a respected and participating member of the university	Inclusive and welcoming orientation which is attentive to the diversity of students; inclusive and hospitable pedagogical arrangements; a university culture that welcomes and values diversity, enabling all students to take up extra-curricular opportunities through information and encouragement.
Employable/qualified for further study	Career service accessible and known to all, career fairs, links to employers, build social capital networks of all students. Enable achievement and information about postgraduate funding. University system problematises university prestige and reputation in relation to employment and employer assumptions about graduates.

Summary of findings

Acquiring a university education requires adequate material resources to underpin access and successful participation. What is considered adequate or sufficient at any stage will need to be debated among stakeholders and policymakers and then looked at in the light of competing demands on the fiscus. This is complicated by the welfare element of student grants where low-income students (and their families) consider these grants as a source of financial support not only for the student but also their family, as our data show. While inequalities, poverty and unemployment prevail in the wider society, this understanding is unlikely to shift.

We found that accessing university needed a bundle of resources, including money and information, to be converted into admission and registering at university. At the point of access, students had uneven experiences of choosing a university and a programme of study and few effective capabilities, but those they had (such as navigation), together with personal conversion factors such as determination and hard work, were crucial for getting to university and assets they brought with them. While at university, epistemic contribution (in its widest sense, including both academic and non-academic materials) emerged as architectonic for higher education and we offered evidence for how it suffused and was suffused by other capabilities that emerged from theorising and data, and to what extent for the group.

Through extraordinary personal efforts and agency fuelled by experiences of disciplined success at school (for all the qualifications regarding quality), the support of key persons, and by exercising ubuntu with friends and family, most students gained or ‘thickened’ a capability set from being at university. We want to emphasise that students brought key attributes and strong family and community commitments, which universities should do more to recognise and value as an asset. However, it is also important to note that some students explicitly took the view that they could have done better at university had they had access to more resources and not had to spend considerable psychological time and energy on worrying about money. In our view this is a valid judgement. Also, in our view, pedagogical and university arrangements could have been more hospitable to these students and that this, too, would have improved their outcomes. Moreover, once they left, the capability for work and future study was severely hampered by structural conditions of possibility which, in turn, curtailed freedom in other capability dimensions.

While this is the overall story of the group, how resources are converted for a university education and the extent to which capabilities are evident as key functionings play out differently for different individuals, as we showed in Chapter 8 using five rich student narratives. We conclude first that, for inclusive learning outcomes to be substantively meaningful, sufficient material resources are necessary to get into university and flourish while there. Second, the benefits of a university education should be rich and multi-dimensional (and supported by university arrangements) so that they can result in functionings in all areas of life, including work and future study. Universities can and should do more to support black low-income students. Universities have a responsibility, if for no other reason as recipients of public funding, but also as the space of student aspirations and effort, to transform in relation to the needs of the mostly black working class (rural and urban) students they have admitted, and to establish the conditions of possibility at all levels for all students to flourish. Lastly, the inequalities and exclusion of the labour market and pathways to further study must be addressed by wider economic and social policies.

We acknowledge a possible limitation in the book in addressing gender in more detail but also race. We note these as important conversion factors, albeit under-reported by students themselves even when raised in interviews for reasons we suggest. Still there is unexplored potential for future publications to unpack how gender relations, sexuality and different forms of masculinity (and power) shaped the everyday lives of students. Gender and race, of course, are not only conversion factors, but could be capabilities too – living in a gender-equal society and a non-racial community, finding employment without gender- or race-based discrimination etc. – and these could be integrated into

our capability domains, perhaps more explicitly than we do in this book. On the other hand, our Matrix is provisional and revisable and we look forward to undertaking this further work using the student narratives.

Challenges and change

We understand the pervasive inequalities (Chapter 3) in South Africa to be a serious ‘bad’ for all the reasons that Green (2008) enumerates: (1) inequality wastes talent; (2) inequality undermines the achievement of an effective and accountable state; (3) inequality undermines social cohesion; (4) inequality limits the impact of economic growth on poverty (and constrains economic growth in the first place); and (5) inequality transmits poverty from one generation to the next. In this light, our project aims to contribute towards conceptualising and realising a higher education in which students across the country achieve their qualifications under conditions of human dignity, voice, and strengthened agency and more equality so that at least three of Green’s conditions are improved: talent is not wasted, intergenerational poverty is interrupted, and social cohesion is advanced. It is worth reminding practitioners and policy-makers that, while higher education matters for development, if we forget the need for equalities as well as innovation and growth, ‘then higher education will sharpen social fragmentation’ (Castells 2017b: 200) and compromise those same development and social mobility efforts.

Change is complex and unpredictable and we understand the challenges of making sustainable and inclusive changes. It is generally hard, incremental and slow work absent major social disruptors, of which #FeesMustFall is one such event, delivering, as it did, free higher education to low-income youth. As Onora O’Neill (1996: 183) explains, advances towards social justice are usually piecemeal, ‘repairing or redesigning parts’. The components of change as set out by Green (2008) comprise: (1) Context – the environment within which change takes place, including student and staff demographics, national education and other policies, global pressures on higher education, global epistemic governance regimes, and technological changes among others; (2) Institutions – the organisations and rules that establish ‘the rules of the game’ and govern the behaviour of agents: culture, religion, race, gender, family, government, legal system, education system, including how capable/effective the state is/is not; (3) Agents, individuals, social movements, political parties, inspirational leaders/individuals; and (4) Events – global, national (e.g. #FeesMustFall), local (a research project like Miratho).

Our intervention, realistically, is located in agents and events, but with the potential to influence institutions. Moreover, as Green (2008) points out, change may be cumulative and sequential and up close may appear slow, even inconsequential, but nevertheless can create pathways to change over time. Changes may even seem dormant until the time is suddenly right for the ideas to take root; it helps then to have good ideas waiting in the wings. Nor do we overlook context as development projects often do (Green 2008).

Concluding thoughts

Within the ambit of higher education there are injustices which are ‘redressable’ (Sen 2009: vii) without waiting for perfect social structures or perfectly just institutions.

Researchers in higher education have claimed that our research enables a wider range of credible voices and experiences and that our research generates knowledge that has explanatory power. Thus, we have a responsibility to pay attention to what might change and whether and how our research over time has or could have any kind of impact on student well-being pathways. While we cannot answer this definitively in the short term, we have written a book which, for the first time, richly documents the lives of a group of low-income youth across their higher education trajectories, their challenges, hopes, aspirations and achievements. Such longitudinal cohort studies are rare. We think this constitutes significant and useful Southern knowledge, conceptual and empirical, for our higher education communities.

Appendix A

Conversion factor tables for Ntando

Access

Access conversion factors	(Key functioning: Being able to access university study)
Schooling	Attended Tlokwenq SSS (quintile 1 school). He attended the same high school as his cousin-sister. She told him it was very good with 'great grades and stuff'. The school had no library or computer laboratory, but they did have textbooks. In grade 10 they were 89 in a class and had lessons outside due to a lack of space. By grade 12 there were 57 in the class. In grade 12 he achieved marks ranging from 60–88% except for English First Additional Language (58%) even though, as he said, he and the teacher 'tried'. The school taught learners to study and teachers pushed them to apply to university. But no one visited from universities to encourage applications. But he said his grade 12 year was 'blessed' and many of the 57 went on to university. Grade 12 marks: isiXhosa (72), English (55), Maths (54), Life Orientation (73), Geography (67), Life Sciences (88), Physical Sciences (70).
Money	Family income from mother who worked in a butchery until 2017, and grandmother's old pension grant.
Information	No information from school about which degree/courses to study. In grade 12 he went on a school trip and learned about accounting, which he decided he wanted to study. No university visited to encourage applications. Thusanani Foundation came to his school with application forms and submitted his for him. He did not know he would have to complete (and pay for) the National Benchmark Test* to assess his university readiness before registering. He returned home, but Thusanani Foundation called to say he could register and he went back.
Geography	Comes from the rural Eastern Cape village of Bikisana in the 'location called Endovela' in Sterkspruit, near the Lesotho border: 'It's quite far from places, it's close to Lesotho, very close to Lesotho. It's quite a rural village, it's rural, like places are scattered.' School was two hours away from home using taxis: one taxi to town and another one to the school, with some walking in between. So in grade 8 he moved to live with his grandmother because her home was closer to school, about 20 minutes on foot.

Community (home)	There was electricity but the roads were bad and water supply was an issue, so they depended on rainwater stored in tanks. Sometimes a truck from the Department of Water and Sanitation would bring water. He describes growing up in his community as 'fun' because one learns a lot about life, about understanding and relating to different people: 'Like humour, you tend to understand people, yes, you understand people better because like, people there they have a variety of backgrounds, yes, like this one is better, this one is like yes, you understand them all, yes, you relate to them.' He did not observe any major social problems, and he said, 'the people are there for each other'.
Family and significant others	He first lived with his mother (his father is deceased). His mother previously worked in a 'butchery' but was unemployed from 2017. He moved to live with his grandmother when he started high school and she supported him financially from her pension grant. He has an older cousin-sister who attended Provincial. His mother and grandmother were keen for him to go to university. The school taught learners to study and teachers pushed them to apply to university: 'They keep on telling you every day, you have got to get a Bachelor, get a Bachelor, go to university' so that such teachers were significant for him.
Personal attitude and characteristics	Determined, hard-working, resilient.

* Higher Education South Africa (HESA, now Universities SA [USAf]) initiated the National Benchmark Test (NBT) Project in 2006. The purpose was to assess entry-level academic and quantitative literacy and mathematics proficiency of students; to assess the relationship between entry-level proficiencies and school-level exit outcomes; to provide a service to higher education institutions requiring additional information in the admission and placement of students; and to inform the design of foundation courses and curriculum responsiveness. The NBTs were piloted in 2009 with seven higher education institutions, prior to wider scale rollout from 2010. The emerging NBT results have highlighted the large numbers of students who are currently entering universities without the required proficiency levels in academic literacy, mathematics and quantitative literacy (Wilson-Strydom 2015).

Participation

Participation conversion factors	(Key functioning: Obtaining a higher education qualification)
Schooling – continuing effects	Grade 12 results, particularly taking and passing mathematics, were significant, because this enabled him to qualify for and pursue his first choice of degree.
Money/funding	2016 Thusanani paid: tuition, accommodation (shared house near Provincial campus, but problems with late payment in 2016 and 2017), books, but not clothes or food. From 2017 and 2018 NSFAS grant covered tuition fees, books, food and accommodation. NSFAS did not cover the postgraduate diploma he registered for in 2019. He thus applied for a university bursary. He informed his grandmother that he no longer receives NSFAS funding so she could help him out where possible. He owes friends money for funds he borrowed to buy textbooks. Transcript not clear on where he stays now or where he gets money to cover living expenses.
Information and support (about being at university)	After being encouraged to apply for NSFAS by Thusanani, he went online and applied for funding. He informed himself proactively about funding opportunities by looking things up on the internet, asking people who might know better, for example, SRC representatives, but said it was difficult to get useful information if you do not live on campus. He had applied for on-campus residence but remained on the waiting list. He had learned quickly how things work at university and had begun to adapt and adjust his expectations already by 2017: 'I think I have adapted a bit. I now can ... I think now I can handle things better now.'

University ethos, grade	In 2017 he gave his university experience an 8, because things started to go smoothly only after the registration fee had been paid and accommodation settled. The only thing missing was for him to 'let himself in' which he found challenging to do because he lacked confidence and found it difficult to relate to many students in his class. In 2018 he gave his degree experience a 9. In mid-2019 he gave his undergraduate degree experience a 7 (but a 9 for postgraduate experience so far because they were 'getting a lot more information and experience').
Pedagogical arrangements, curriculum, study methods, critical thinking	In 2016 he had enjoyed Economics and Commercial Law. In 2017 he described most teaching at Provincial as 'speeches' accompanied by PowerPoint slides with no proper formatting and no feedback: 'With the classes it's like we have many students. Then, I think I am cool now with everything, I understand how things work, yes, and tests of course, you have to also adapt, like coming from high school with your marks, like no, I am going to hit that. And you get a surprise in a test like what, what is this [low grade]? ... Lecturers don't ask why are you guys getting low marks and stuff, what can we do, how am I supposed to teach you, they don't, like, interact with us in that way. They tell us that okay, we will be writing a test on this and this, yes, they tell us that, yes. They just don't prepare us for them.' His Taxation lecturer was the exception. She engaged better with students, was encouraging, cared about them doing well. Thus he learned the most from and enjoyed Taxation the most in 2017. Assessment methods ranged from homework assignments, online quizzes, tests and exams. In 2018 he had learned the most from Commercial Law: 'Because I think I fell in love with it. I actually got my mind into it and understood everything.' But he continued to love Taxation. He learned the importance of working and studying in groups in order to learn from other people. He grew more confident in his understanding of the content, felt comfortable to ask questions in class or via email to the lecturer, and could learn from other students in class. By 2019 he was finally learning how to apply the knowledge gained from his undergraduate degree: 'In the previous years it was rather theory than application. Now this year we're learning applications because we were discussing it with my friends that if we went to work this year, we wouldn't understand anything, like what to do and everything. Now this year we are learning. I think I can actually give a professional judgement on statements and how are they now, yes.' Although he prefers to study on his own, he has grown to appreciate the value of studying as a group because of what you can learn from others through interaction. This has also played a role in increasing his interpersonal skills and boosting his confidence (he describes himself as having been shy and somewhat withdrawn when he first got to university). The question was posed to him: What do you understand by the terms 'being critical' or 'critical thinking' in relation to academic knowledge or what you learn at university in your degree? His response was: 'I understand that here at university we are taught to be critical thinkers in a sense that we should know the core of our work to make sensible judgements and do introspection in the work we've done.'
University status, environment, facilities, location	Ntando described the university as adequate with regard to facilities, teaching, and so on. He thought that the accounting department did a lot to support students, but he did not feel that the university takes the same interest in the well-being or success of its students. Asked if he felt listened to, he responded: 'That's tricky. I don't know how to answer it but in the entire university I don't think we're being listened to, even though we do have the SRC to report to and everything, you're never really sure if the university addresses these things. Because as much as we reported the issue of NSFAS [late payments] to the SRC I think the management only responded because we went to the faculty and the school of accountancy and said we will send a message to the rector. I think that's when the response came from the university. Apart from that I think they wouldn't have said a thing'.

Extra-curricular activities (ECA) (leisure and/or organised university ECA)	He mentioned going to church every Sunday in the 2017 and 2018 interviews. He was interested in sport – volleyball and basketball – but did not know how to go about joining when he first arrived: ‘I really want to join sports but then I don’t know how to do it. I want to join sports. I don’t know how you get to go to the basketball grounds to just play. Do you just go there? I don’t know what happens there. I just see guys playing. Sometimes they are not there. I don’t know.’ By 2019 he still hadn’t taken up any ECAs. He still did not know where to go to get information on joining the choir for instance. He said this kind of information was not on Blackboard (where he thought one might find such information). Asking his friends was not helpful as they too were not engaged in any campus ECAs. He still thought the best way to be exposed to these things was by living on campus.
Home community, geography	He was finding it increasingly difficult to relate to and engage with youth in his community and some old friends: ‘Not to be rude, but I guess the level of thinking is different now because sometimes we meet. Now you have to adjust how you react to certain things and think like them. You have to stop thinking the way you do and accommodate them because they will never accommodate you because you’ll be talking strange stuff to them. Hence I don’t talk with the guys this year that much because I don’t want to be in a position to talk about school. Yes, because I can talk too much about school.’ Still, if there were companies he could work for back home, he would. But it’s more likely he will work elsewhere. He was interested in giving back to learners who have a similar background to his. He and a friend were in the process of registering an NPO with a focus on providing extra lessons to high school learners and securing their funding for higher education.
Relationships: (a) Family (b) peers at university (c) lecturers and tutors	Family – By the third interview he commented that there had not been much change in his family. His cousin-sister had graduated and was at home looking for a job. He said that at family gatherings he is seen as the same person, but he would like to appear ‘more as a student’ (students sound and look different to people who haven’t been to university). Peers – He got along with peers and has friends, usually a group of four whom he mostly studied with, because he has less time for socialising. He still felt that he did not quite fit in with students who came from better-off backgrounds: ‘I think I mentioned it at the last interview that it has been difficult to actually interact with some other people because they are far from who you are financially. So, it’s rather difficult to converse with them or be in the same position as them, but yes, I think apart from that and money, there’s nothing I’ve been excluded from. There’s nowhere, yes.’ Lecturers – The Taxation lecturer stood out and clearly has had a big impact on him. He mentioned her as someone who has inspired him to keep going: ‘I think that would be my tax lecturer. Her personality is typically that of a chartered accountant that is being said in the books. She loves her work; she does her work and she’s responsible and she’s very prepared for everything. I think I’ve learned a lot from her and yes, I think it’s her who’s managed to motivate me in my academic life.’

Personal attitude and characteristics	He was still determined, hard-working and focused, used his navigational capital and operated proactively. He took the initiative to send out applications for jobs, apply for postgraduate funding, and so on. He did not speak of any other ambitions besides becoming an accountant. He did not know what else he could/should aspire towards: 'Well, I don't know. I'm stereotyped at this moment. I just want to be a chartered accountant. Before I came to university, I wanted to do biochemistry and microbiology because I loved science at the time. I did science at school. But now I think I don't know. I've got into this accounting thing and I don't know what else I'd do apart from being a chartered accountant. Being an accounting teacher? I don't know what else I'd do.' His agency is strong. He was determined to succeed and recognised what he could and should do to improve his prospects. Ntando passed all modules first time around, so he is one of the few Miratho students who completed his undergraduate degree in three years. In 2019 he was registered for a postgraduate diploma (which he needed to increase his chances of getting an accounting job). He was looking for funding opportunities (NSFAS does not fund postgraduate studies) and had been applying for internships to bridge the gap until he finds a job opening for which he was qualified.
Race and other inequalities, excluding income	Ntando only mentioned race in relation to having been exposed to different cultural and racial groups, and how his interpersonal skills and confidence have improved because of his having to speak to, work with and relate to diverse others.
Grades and progress	He had passed all his modules without failing or carrying any of them over during undergraduate studies. He obtained four distinctions in 2016, none in 2017, one in 2018. He had aimed for an average of about 65 in order to qualify for the postgraduate diploma (PGDip), which he achieved. Ntando graduated in 2019 and he was then registered for the PGDip in accounting.

Moving on

Moving on conversion factors	(Key functioning: Finding decent, paid employment)
Obtained degree or diploma (with or without transcript and degree certificate, including how well they did)	BCom degree completed in 2018. PGDip not yet completed, one module failed and needed to be done again (with UNISA). Ntando had his degree transcript for work applications.
Field of study and labour market opportunities	Accounting. Training opportunities seem to be good. Ntando had found a three-year training position without difficulty.
Funding/money (any debt or outstanding university fees: funding for postgraduate studies; money for: access to internet for online job searches and applications; transport to attend job interviews, etc.)	He had no fee debt for the undergraduate degree (NSFAS). He did not say whether there is money owed for the PGDip. He did not mention money challenges for job searching – this was done while at university.
Information and support (about applying for jobs; job hunting or job searching strategies; writing a good CV, preparing for job interviews; starting own company, etc.) – from the university, from friends, from family, from others or networks	No information or support from the university. Did not mention help from friends. But he knew enough to search online for firms, and which firms, and then apply online. It was not clear how he knew this.

University reputation (influence on labour market opportunities – employers' preference for or disinterest in hiring from specific universities, student's perception thereof)	Not mentioned other than that he felt the teaching quality compared well.
Race, gender, other inequalities (not money)	Not mentioned.
Personal attitudes, values and characteristics, including hard work and aspirations, plus clear articulation of plans for way forward	Worked hard for the degree, resilience in the face of funding challenges, enjoyed the work, and remained motivated. Clear career plan to eventually qualify as an accountant and knows what is required.
Community, place/geography/location or environment (e.g. rural or urban, home or university, and labour market opportunities)	His job is in Cape Town, some way from his rural Eastern Cape village where opportunities for being an accountant do not exist.
Relationships and networks: Relationships with family, extended family members, significant others (including lecturers), friends, networks at university, within home community, etc.	Did not say much, although he does value family.
Access to technology (computer or laptop, free or cheap internet at home or at university or off campus, internet café close to home, etc.)	Not mentioned, but as he had done job searches online he would have had internet access and laptop access while at university.

Appendix B

Ideas for the measurement of capability domains and functionings

We take account of both functionings (achievements) and capabilities (freedoms to achieve functionings) for a richer informational base which enables attention to capability-functionings gaps or dislocations.

Domain: Epistemic contribution. Equality in gaining degree knowledge, being able to reason, understand, apply, share, discuss and examine knowledge critically, alone and with others.

Key functioning ('learning outcome'): Being an epistemic contributor

Supporting functionings:

- A. Attains a threshold of academic knowledge, reasoning (argumentation) and understanding and applying of knowledge through access to higher education teaching and learning;
- B. contributes and receives knowledge materials (informational and interpretive) to and from the common pool of interpretive materials; shares/communicates this knowledge with others and is taken seriously in the process;
- C. thinks critically, taking diverse viewpoints into consideration;
- D. is critically aware of curriculum issues, including but not limited to decolonisation; and
- E. is reasonably confident in speaking, reading and writing in English.

Inequalities to be aware of: Of significance in this domain are process inequalities (teaching and learning) which relate to who is included in and participates effectively in teaching and learning processes. There are also horizontal inequalities (culture) which are linked to who the student is, and who participates in various pedagogical activities with confidence. Vertical inequalities in this domain could include differences in attainment between groups, by race, ethnicity, gender, social class, disability, nationality as well as family background.

University education: The capability is at the core of university education. It is important to know whether university education fostered this capability by encouraging participation in contributing to epistemic materials inside classrooms, in particular,

with students also self-reporting on how they experienced the process of enhancing epistemic contributions. The capability also relates to acquiring a good understanding of (inter)disciplinary knowledge; an appreciation of how the subject matter relates to the social and/or natural world; and a grasp of what it means to be critical and to argue in relation to the subject matter.

Academic department: Academic departments could collect evidence about professional development workshops offered in the faculty or centrally: counting who attended; evaluating how effective they were based on self-reporting and more informal discussion; and, ascertaining how widespread these are in the department based on self-reporting. Each department could hold an annual focus group discussion with lecturers about teaching and learning practices in the department and what needs to change. Students could be asked clusters of questions which relate to the supporting functionings A–E of the capability, with indicators such as: I am contributing to knowledge in my subject; I can make arguments based on what I have learned; I contribute to discussions in class or tutorials; I am open-minded about different points of view and able to arrive at my own perspective; I feel able to contribute to decolonisation debates on my curriculum.

Alternatively, the relevant capability questions on the Miratho survey would provide some basic information (survey questions on Academic Progress, and Knowledge and Learning). Such information would enable the department and university to consider whether specific groups of students have more and better opportunities to develop as epistemic contributors.

University: University managers could collect data on the resources and leadership they have in place to support student and lecturer development in relation to this capability. For example: an aggregate of 60% or more in degree outcome; number of distinctions achieved in the degree; number of modules failed; time taken to completion; and, number progressing to honours – all of this data by race, gender, school quintile, NSFAS funding recipient, declared disability.

Institutions would also need to deliberate across relevant forums, drawing on the evidence sources above, about which students are provided with opportunities to develop the capability and achieve the functioning, where these opportunities are provided, and what the university enablers and constraints are, with a view to implementing change beyond tickboxes and checklists. Universities could also draw on relevant questions in their own Student Engagement Surveys or data from their relevant existing teaching and learning centre. Finally, an annual focus group, one in each faculty, could yield rich qualitative data.

Domain: Practical reason. Equality in reasoning about, reflecting on, and forming a view of a good life and in planning purposively to work towards this.

Key functioning: Planning one's (good) life

Supporting functionings:

- A. Forms ideas about living a good life that are valued and informed by critical reflection;

- B. imagines alternative good lives that are valued and informed;
- C. aspires for a good life that is valued and informed;
- D. chooses and plans for a valued and informed good life; and
- E. makes decisions and pursues a plan of action to achieve a valued and informed good life.

Inequalities to be aware of: It is important to gauge whether students are adjusting aspiration downwards in response to deprivation (vertical inequalities). Austin (2016) found that, during ‘austerity’ in the UK, people – especially young people – from low-income households moved away from higher human potential goals towards such ‘subsistence goals’ as material security, which, she argued, is a diminishment of internal capability. In relation to horizontal inequalities, students do not have the same access to and contact with individuals and networks which support planning their futures. University education and the policies and practices of universities can establish and embed processes that tackle such inequalities.

University education: Practical reason depends on both internal development and external material conditions, which indicators should try to capture. Austin (2018: 24) argues that practical reasoning as an ‘activation factor’ deserves special attention in evaluations of well-being and justice. Students who succeed in coming to university have thought of being a student as a component of a good life, especially those for whom this achievement has been against the odds. An important question is whether the experience of university education has retained and strengthened the capability of practical reason by, for example, supporting aspiration, expanding horizons, deepening values or offering practical help to achieve goals – so there should be some ‘process’ indicators.

Practical reasoning is a personal process, experienced subjectively – in Nussbaum’s terms an internal capability – so indicators need to reflect this. For example, students can self-report that they reflect about and plan their lives. As university students, they are in a specific situation: for a few years they need to plan and act to gain a degree and plan for a post-university life that has yet to unfold. All capabilities are dynamic, and people constantly use practical reason to adjust their plans depending on circumstances often out of their control.

Academic department: Practical reason is a capability dependent on educative processes: that is, students should have as many opportunities and as much freedom as possible to reflect on what is a good life (and imagine alternative good lives) and how to achieve it. So, academic departments can deliberate where it is appropriate in the curriculum to offer students such opportunities. Professional development for personal tutors in departments could include signalling how important it is for students to be able to imagine future possibilities for themselves and to be able to understand where opportunities lie and what barriers need to be overcome.

University: To get a broad picture in relation to this domain based on self-reporting, the university might institute a survey (perhaps longitudinal or final year, like the Miratho survey) with a Likert-scale in which clusters of questions would relate to the sub-domains of practical reasoning. For example, for sub-domain 1: I think about what

I would like to do in life; I think about what kind of person I want to be; I think about what matters to me most in life; I have ideas about the reasons for my goals in life. The results of such a survey would allow an institution to gauge whether specific groups of students are systematically more or less able to reason about, reflect on and form a view of a good life and to plan purposively to work towards it.

With regard to process, the university might organise audits of curricula and of other services and extra-curricular opportunities at university, which could lead to reforms and innovations. We did not find that students were accessing careers services, which could play an important role by organising creative opportunities for students to consider their future. For example, the students who had taken part in the Miratho Project told us that annual interviews enhanced their capacity for reflecting on their lives and seeing opportunities and barriers more clearly.

Domain: Navigation. Equality in the ability to manoeuvre through university and to adapt to succeed academically.

Key functioning: Navigating university culture and systems

Supporting functionings:

- A. Recognises inequalities at the university and how they affect self and others;
- B. understands how the university works both for academic learning and for life at university;
- C. possesses critical navigational skills: is resilient, with inner resources; has supportive relationships and cultural strategies to confront obstacles; and, learns from experience;
- D. knows where to go for advice for academic and well-being support; and
- E. possesses a measure of financial literacy to be able to budget available funds sensibly.

Inequalities to be aware of: Navigation as a capability points to the need to be aware of horizontal, vertical and process inequalities. Horizontal and vertical inequalities intersect in this domain to give rise to systems and structures promoting unequal access and participation in higher education. This could be based on differences in attainment between groups – by race, gender, social class, disability and family background. For instance, because low-income students are usually first (in the extended family) to go to university, they are likely to be ‘doubly disadvantaged’ by lacking family members with prior knowledge of university culture and systems, capable of providing hot knowledge in addition to coming from a context where accessing cold knowledge from the internet or universities is limited (Ball & Vincent 1998). Thus, these students lack (high-stakes) information on university culture, how to navigate the application process, and how to participate equally in higher education, limiting their academic success and general well-being. Process inequalities relate to teaching and learning, where students may struggle academically and socially without being familiar with university culture and processes or aware of the different academic support and welfare services offered by universities.

University education: As a capability, navigation acknowledges the more common

deficit approach adopted by universities aiming to foster cultural capital in which ‘the locus of control is with the student (albeit influenced by their interactions with staff and other students) to determine their final outcome’ (Naylor & Mifsud 2020: 267). Instead of focusing only on students, there needs to be a shift in responsibility for all university actors to understand the difficulties that some students face in grasping how a university works.

Academic departments: Various university departments can, for example, provide professional development support enabling lecturers to effectively teach diverse students and making the curricula accessible and relevant to all students (Naylor & Mifsud 2020). They might also ensure that students know about available support and services.

University: Universities can foster this capability by being more inclusive and dismantling structures of inequality. An examination of vertical and process inequalities in this domain would entail asking whether the institutional set-up (culture and systems) reduces barriers to, and supports diverse students’ access, participation and academic success. Questions illustrating vertical inequalities would reveal students’ awareness of existing inequalities and how they navigate these. Such questions can be drawn from statements on supporting functionings A, B, C and E of this capability through quantitative or qualitative methods. This includes indicators such as: I understand inequalities and how they affect me; I know how life at the university works; I know how to find my way through university procedures on my own (e.g. financial aid, registration); and I know how to budget my finances and make it work. Questions pertaining to process inequalities would reveal students’ awareness of how they can navigate the system and succeed academically. These can be drawn from statements on supporting functionings B, C and mostly D of this capability through quantitative or qualitative methods. They can include indicators such as: I understand what it takes for me to be academically successful at this university; and I know where to go for academic support and advice.

Relevant questions in the Miratho survey provide information on knowledge and use of services such as the university wellness centre and extra-curricular activities. The survey also provides data on academic progress such as number of distinctions acquired and failed modules. Such information would enable the university to evaluate whether different student groups have equal opportunities to participate and succeed.

Domain: Narrative. Equality in telling one’s own higher education story with confidence.

Key functioning: Telling one’s higher education story

Supporting functionings:

- A. Tells their story of access, participation and outcomes in higher education;
- B. confidence in telling this story to diverse others in diverse situations; and
- C. has this story listened to, heard, recognised and valued in the university and by policymakers.

Inequalities to be aware of: Vertical inequalities in this domain would include unjustifiable discrepancies in whose stories are being told, listened to or acknowledged by

universities, across different student groups – by race, ethnicity, gender, social class, dis/ability and nationality. It would be important to know whether university education fostered this capability by encouraging students to self-reflect and talk about their life and university experiences, with students also self-reporting on how they experienced the process of telling their story or listening to the stories of others. This indicates that there may be horizontal inequalities to look out for too, which are brought about by a university culture that limits a sense of belonging and community for disadvantaged students. Horizontal inequalities may also manifest when oral traditions are less recognised as a mode of sharing social or academic knowledge, or when English is culturally dominant in universities, at the expense of building on the range of languages or modes of expression that culturally diverse – in our case black low-income rural and township students – bring with them into the university. Again, most students who took part in the Miratho Project reiterated the personal and social significance of having the opportunity to tell their life and university stories either through the participatory photovoice process, or through the annual life-history interviews.

University education: University teaching and learning processes should enable and enhance students' linguistic and narrative capital. Doing so would increase possibilities for all students to recognise themselves and to be seen by others as articulate storytellers who are able to use their life and university experiences to construct narratives that contribute to shared pools of knowledge about higher education. Linguistic capital refers to having multiple language and communication skills (Yosso 2005). It includes the intellectual and social skills attained through communication experiences in more than one language and/or style (Yosso 2005). It often entails experience as engaged participants in storytelling traditions that may include listening to and recounting oral histories, parables, stories and proverbs (Yosso 2005).

On the other hand, narrative capital is a more specific form of linguistic capital. It entails having a 'good' story to tell, a story that is of value to the teller, and valued by the listener, both because of the content of the story and the way it is told or articulated (Watts 2008). However, both narrative and linguistic capital are rendered meaningless in the absence of narrative capability, or the real opportunities individuals have to tell their stories (Watts 2008). As such, a necessary condition of this narrative capability is the freedom to be listened to (Watts 2008).

Academic departments: Research at departmental level can investigate through quantitative or qualitative methods when, where and how students can have their university story told, listened to, heard, recognised and valued in the university by lecturers (but also by university leaders and policymakers). Questions can be drawn from functionings A and B of this capability. Indicators would include students reporting whether they have safe spaces to talk about their life at university; talk about their struggles and challenges; tell their community about experiences of university or tell their university story with confidence to people from different backgrounds (as asked in the Miratho survey). In relation to functioning C, for example, students can self-report whether they think their story matters in their field of study, whether they believe telling their story is important, or whether they see value in listening to the life stories of other students.

University: As Watts (2008) argues, everyone has a story to tell, but the different lives that inform and frame the stories we tell of ourselves are valued differently. Universities should question whether the stories of different students are valued differently at institutional level. It would also be important to ask whether the university fosters a culture of storytelling and a culture of taking their students seriously when they do recount their university experiences.

Domain: Inclusion and participation. Equality in being respected and participating fully in classrooms and in the wider university.

Key functioning: Being a respected and participating member of the university.

Supporting functionings:

- A. Is treated with respect and empathy and treats others with respect and empathy;
- B. does not experience discrimination from lecturers or students in the classroom; experiences inclusive curricula and pedagogies;
- C. does not experience discrimination in the wider university;
- D. feels socially included in the wider university; and
- E. participates in the classroom, the wider university, and community/political activities.

Inequalities to be aware of: In terms of vertical inequalities, not having enough money excludes students in several ways: not gaining access to books and computers; not being able to socialise; not wearing acceptable clothes; and not having sufficient toiletries, etc. To add to exclusions caused by a lack of resources, horizontal inequalities play out: the culture of the university is often alien and alienating to students from low-income, deep rural backgrounds. Our Miratho students told us of the efforts they made to adapt to such an environment, but there was little the universities appeared to be doing to meet students halfway by appreciating their efforts and adapting policies and practices.

University education: Being included and participating relate strongly to the horizontal category of inequalities whereby the culture of universities marginalises students who struggle for a sense of belonging. Opportunities in this domain, then, depend on process equalities.

Academic department: Measuring can take the form of audits of policies and practices which support inclusion and participation (e.g. inclusive, participatory, transformative and affirmatory pedagogies). For example, how many lecturers attend professional development education and training about being inclusive, or to what extent is the academic department engaging with discussion and action about decolonising the curriculum.

University: Clearly, being included and participating also belong to the realm of subjective experience. Measurement, therefore, would include asking students how they feel and what they do either in a survey or in interviews or focus groups. The Miratho questionnaire contains statements pertaining to this domain:

- In relation to 'Is treated with respect and empathy', the survey statement is 'Others treat me with respect';
- in relation to 'Does not experience discrimination from lecturers or students in the classroom', the survey statement is 'I do not feel overwhelmed by anxiety over academic work' matched in relation to 'Does not experience discrimination in the wider university' and the survey statement 'I do not feel overwhelmed by anxiety over aspects of my life at university';
- in relation to 'Feels socially included in the wider university', the survey statement reads 'I fit in, in my university' and 'I can communicate with people in at least two African languages'; and,
- in relation to 'Participates in the classroom, the wider university, community/ political activities', the three survey statements read 'I belong in my study programme', 'I participate as an equal in social activities in my university', and 'I have enough money to participate in leisure activities of my choice' (Survey Q. 7.6).

More statements and questions could be generated in relation to the sub-domains above in surveys, interviews or focus groups. There is some evidence that feeling excluded and unheard affects academic achievement. So there is also statistical data which can inform evaluating this domain, for example, charting by race, gender, disability, rurality, social class 'throughput', retention, and the 'attainment gap'.

Domain: Ubuntu. Equality in understanding that a person's well-being is connected to the well-being of other people.

Key functioning: Connected to the well-being of others

Supporting functionings:

- Understands that their well-being is connected to the well-being of other people; shows support, care and concern for the well-being of others, and values this; has a larger sense of meaningful purpose beyond own self-interests;
- has good friendships and is a good friend to others;
- has mutually trusting relationships with other people;
- shares resources with other students who do not have these resources, and has others share their resources; and
- shares information gained at and about university with others, for example, about getting into university (credible knower and teller about university life).

Inequalities to be aware of: Process inequalities in the capability for ubuntu would include limitations on the freedom for students to learn how to theorise, explain or challenge dominant ideas about humanity based on indigenous cosmovisions. Process inequalities could also include limitations in students' opportunities to learn how to treat each other and relate to other people based on the principles of ubuntu. Inequalities in this domain could be horizontal in terms of Western worldviews and values dominating the academy at the expense of indigenous values and worldviews. Such inequalities could be identified through qualitative means such as student self-reports

on feelings of not belonging at a university on the basis that no one shares the same cultural or other values and worldview or experiences, so that there is no one with whom to seek community in the process of learning.

Vertical inequalities could be identified by looking into the distribution of what Fricker (2007) refers to as epistemic materials, and whether or not there is an unreasonable distribution of epistemic materials that are founded on Western ontologies, at the expense of indigenous ones. For example, a reasonable distribution of epistemic materials related to language would include the development of a rich vocabulary in both English and local languages, or a working knowledge of concepts that are rooted in diverse theories on, for instance, education, power, poverty and inequality. These epistemic materials can be stimulated through conversations, discussions, debates or public or academic engagement with students and lecturers whose ontological, epistemic or moral grounding are informed by alternative (non-Western) cosmovisions.

University education: Teaching and learning processes could encourage students to challenge pervasive Western ideas about the human condition, for example, by incorporating indigenous philosophical literature into curricula, or incorporating ideas from indigenous epistemologies into pedagogical practices. For example, in his writing on ubuntu as an architectonic capability, Le Grange (2012) argues that achieving any of the central human capabilities on Nussbaum's list is not possible without the presence of other beings (both human and non-human). That is, human capabilities such as being able to play, to use one's senses, to imagine, to think, to reason, to produce works, to have control over one's environment and to have affiliation, can only be expressed in interdependent relationships with other human beings and the biophysical world (Le Grange 2012). Ubuntu promotes the idea that becoming human and humanness unfold as an ongoing process of reciprocal inextricably linked relationships with wider human and biophysical communities (Le Grange 2012). Western ideas about humanity are often less emphatic about these relationships and centre on upholding humanity through securing individual human rights. Teaching students to engage critically with conflicting ideas about humanity, by allowing them to learn more about indigenous cosmovisions could be a starting point for supporting the capability for ubuntu.

Academic departments: Ubuntu expresses the idea that one cannot realise one's true self by exploiting, deceiving or acting in unjust ways towards others – because our well-being is connected. To support the ubuntu capability, university departments would need to know whether staff and students in their department treat each other with reciprocal care and support. Both staff and students could self-report on this.

University: As a worldview, ubuntu is likely to be more prevalent in rural communities (than it is in urban spaces) where mutual care and reciprocal support play pivotal roles in minimising everyday struggles associated with poverty. However, when opportunities exist within universities for students to uphold this worldview (and capability), which encourages the notion that one's own well-being is connected to the well-being of others, spaces are created for students to treat each other and those around them with care and compassion. This is because understanding humanity in ubuntu terms implies a set of principles or values that guide how one relates to others.

In the Miratho Project, students often talked about wanting to uplift and give back

to their communities. For example, a few students volunteered at their former high schools during university holidays to pass on information and assist low-income youth like themselves with completing application forms for accessing university. The Miratho students did this because they see the betterment of others as a process that in itself betters themselves. An important question for universities, then, would be whether they support the capability for ubuntu, through an ethos of ubuntu at institutional level that filters down to how people (academic and support staff, students, the surrounding community) see and treat each other.

Domain: Emotional balance. Equality in achieving emotional balance in higher education experiences and learning.

Key functioning: Being emotionally balanced at university

Supporting functionings:

- A. Derives enjoyment and pleasure in learning degree subject/s;
- B. is resilient in the face of despondency, and able to overcome obstacles;
- C. talks through worries or problems with friends or at the wellness centre; and
- D. experiences happiness and contentment at university, not fear and worry.

Inequalities to be aware of: Process inequalities might manifest in teaching and learning which do not recognise or take account of the potential impact of the affective on achievements, or pay attention to that which students are emotionally vulnerable to with regard to their learning. Horizontal inequalities might manifest where students are emotionally affected by feeling that they do not belong in the university or programme, that they are somehow 'imposters', that lecturers or the university do not care for them as human beings. Vertical inequalities might be evident in the absence or poor quality of support services for students struggling with emotions and learning.

University education: There is a significant challenge in measuring emotions and emotional balance and a real risk in reducing something so subjective and complex to an indicator or number. Nonetheless, questions such as these could lend themselves to a simple self-report survey to canvass key aspects of emotional balance among students. Our suggestions are tentative and open to improvement. Questions might explore which students find enjoyment in learning their subjects, and which do not; which students say they are able to bounce back in the face of university obstacles and which do not; which students say they are able to talk to someone (a friend, wellness centre representative) about their worries, and which do not; and, whether students say they are satisfied or happy at university.

Academic department: Academic departments should discuss the impact of the affective on both learning and teaching.

University: Annual focus group discussions facilitated through the SRC or the wellness centre could gauge the nature of the support that diverse students need for emotionally balanced lives at university and how to develop an affectively sound university education and environment. At university level, discussion should take place on the availability and

uptake of a university wellness centre's services and individual counselling as well as the provision of workshops for lecturers and support service administrators on understanding students' emotional health and the connections of emotions and learning.

Domain: Future work/study. Equality in preparation to find a graduate-level job in the public or private sector, self-employment or further study.

Key functioning: Employable/qualified for further study

Supporting functionings:

- A. Is well prepared to find a graduate-level job in the public or private sector, self-employment or further study;
- B. has had the opportunity to develop knowledge and skills that are relevant for employment, self-employment or further study; and
- C. knows the relevant skills and strategies that are required to apply for jobs or further study.

Inequalities to be aware of: Inequalities in this domain are mostly vertical and related to process. They result in differences in employability-related capacities stemming from unequal access and participation of different groups, usually by race, social class and family background. For instance, due to a lack of information on higher education access such as degree requirements, some low-income students end up enrolling for diplomas rather than degrees because of a lack of prerequisite gateway subjects such as maths. This is because of a lack of information on grade 10 subject choice, resulting in the selection of maths literacy rather than maths, a pre-requisite for degrees in STEM-related subjects. This, ultimately, affects students' employment options, as employers are likely to hire someone with a degree rather than a diploma. In addition, process inequalities in this domain would relate to teaching and learning arrangements, including the type of university and its reputation among employers, as well as degree choice. Employers are more likely to hire graduates from higher-ranked historically advantaged institutions, which are comparatively better resourced and connected, than historically disadvantaged institutions, which are generally under-resourced and have more tenuous links with the labour market.

University education: One assumption of the emphasis on graduate skills is that all graduates are more or less at the same level of cognitive development and socio-economic circumstances when they access or exit higher education and therefore in a position to achieve broadly similar skills for employment. However, Walker and Fongwa (2017) refute this in their examination of the various factors influencing employment as an outcome. For example, they identify constraints such as university preparedness, financial and language challenges, academic quality such as laboratory facilities, and exposure to potential employers as some of the factors responsible for different employment outcomes. Hence, university arrangements within and out of the lecture rooms should equally expand students' opportunities.

Academic departments: Departments should enable student access to economic opportunities by providing quality teaching and learning, encouraging and support-

ing extra-curricular participation, and fostering links with related employers and other universities. For specific subjects, they can assist students in getting placements and provide support in the form of CV writing and interview preparation.

University: While external conditions ‘influence but do not wholly determine opportunities and outcomes for individuals and groups of students’ (Walker & Fongwa 2017: 217), universities are therefore not powerless spectators in developing students’ capabilities. They have the potential to influence knowledge and practices within and outside higher education by employing transformative pedagogies and fostering active and equal student participation. Students should be aware of and have easy access to high-quality careers advice.

The vertical and process inequalities in this domain would entail examining whether the institutional set-up reduces barriers to, and supports diverse students’ access, participation and academic success. An assessment of process inequalities in this domain would entail an examination of how institutional capacities and pedagogical arrangements fostered graduate employability. Questions relating to this capability would reveal students’ self-assessment of their readiness for the world of work or further study commensurate with their level of education. This can be done quantitatively or qualitatively drawing from supporting functionings A to C of this capability. Indicators would include the following: I feel well prepared by my university to find a graduate job, self-employment or study further immediately after finishing this degree; I know how to write a good CV; I know how and where to search and apply for jobs or further study (e.g. newspaper and online advertisements and careers office); and I have people (family and friends) who can put me in touch with opportunities/people/networks to get a job, self-employment or further study. Specific questions on the Miratho survey would provide some information on students’ future employment prospects. Supporting evidence can also be gathered from universities’ graduate employment surveys and employers themselves.

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Index

Page numbers in *italics* indicate figures and tables.

A

academic departments 160, 172, 173, 175, 176, 177, 179, 180, 181–182
 access conversion factors 146, 165–166
 accommodation 49, 51, 94, 97, 98
 accountability 24–25
 acute hardship 46, 47–48, 47
 ‘adaptive preference’ 19
 administrative services at universities 66
 admissions score (APS) 43, 43
 Afrikaans language 101
 agency 22, 45–46, 50–51, 87–88, 90–91, 133, 154, 162
 AHELO *see* Assessment of Learning Outcomes in Higher Education (AHELO) programme
 Allais, S 133
 Allan, J 23
 Altbach, PG 81
 apartheid 3, 9, 23, 39–40, 42–44, 62, 83, 99, 124–126, 131
 Aphiwe: Provincial (life history) 145–148, 153
 APS *see* admissions score
 Archer, M 91
 ‘architectonic’ capability 13–14
 Ashwin, Paul 26–27
 assessment methods 105–106
 see also marking

Assessment of Learning Outcomes in Higher Education (AHELO) programme 25–26
 associations *see* student associations
 attitudes 90–91, 133–134
 Austin, A 45, 57, 64, 173

B

‘bantustans’ *see* homelands
 Baxter Magolda, Marcia 27
 beings 18, 19, 28
 Bernstein, Basil 10, 70
 Bertaux, Daniel 137
 Bhorat, H 36
 Biko, Steve 60
 Bourdieu, P 70
 Bozalek, V 21
 British Council 26
 bursaries 78, 84–85, 87, 94
 see also funding
 Byskov, M 56

C

capability approach
 learning outcomes and 28–33
 value of 3, 17–22, 157–158
 ‘capability’, definition of 3
 capability domains
 identifying of 56–74, 58
 measurement of 160, 171–182
 use of term 21
 Centre for Risk Analysis (CRA) 37
 change 163–164

- charter by Miratho students 110
 - child support grant 36
 - Claassen, R 18
 - Clark, D 74
 - class *see* social class
 - class timetables 105
 - Cloete, N 4–5
 - clothing 49–50, 51, 71
 - code book for Miratho Project 10
 - cold knowledge 85, 86
 - ‘colonial conversion factors’ 40, 42
 - colonialism 3, 6, 9, 39–40, 62
 - combined capabilities 18, 19, 22
 - commitment 133
 - Common Book 11
 - community 81–84, 118–119, 132, 135, 139, 146, 166, 168, 170
 - Community Household Survey (2017) 13
 - competencies 21
 - completion rates (success rates) 12, 42
 - ‘complicated conversations’ 32
 - computer literacy 95
 - computers *see* laptops; technology, access to
 - conditions at universities 98–100, 99, 113, 160, 161
 - confidence 70, 102–103, 102
 - connections *see* networks
 - conversion factors
 - access 146, 165–166
 - background to 11, 19, 35, 53–54, 75–76, 91–92, 134–136
 - educational 38–39, 38, 76, 79–81, 101–109, 113–114, 121–126
 - environmental 76, 81–84, 97–100, 112–113, 131–132
 - from life-history interviews 52–53
 - material 76, 77–79, 94–96, 112, 126–128
 - objective 36–44
 - personal 76, 90–91, 110–112, 132–134
 - social 76, 84–91, 100–101, 113, 128–131
 - tables for Ntando 165–170
 - Covid-19 pandemic 3–4, 9, 26–27, 36, 39, 120–121, 128
 - CRA *see* Centre for Risk Analysis
 - ‘cramming’ 103
 - curiosity 133
 - curricula 31–32
- D**
- data analysis, Miratho Project 7
 - datasets, Miratho Project 6–7, 7, 12–13
 - Davis Tax Committee report (2016) 2
 - debt to universities 43, 46–47, 120–121, 126–127, 141, 144–145, 151, 169
 - decolonisation 5–6, 61, 62, 102, 157
 - deficit viewpoint 154
 - DeJaeghere, JG 57, 65
 - democratic rights 70
 - determination 133–134
 - diplomas 76, 117
 - discrimination 113, 130–131, 131
see also racial discrimination
 - doings 18, 19, 28
 - dress *see* clothing
 - drop-out rates 117
- E**
- earnings *see* income
 - Eastern Cape 37
 - economic growth 4–5, 24, 72
 - economic justice 53
 - educational conversion factors 38–39, 38, 76, 79–81, 101–109, 113–114, 121–126
 - Educational Management Information System (EMIS) 26
 - education policies 42
 - electricity 83, 128
 - ‘emergent learning outcomes’ 30–31
 - EMIS *see* Educational Management Information System
 - emotional balance capability domain 14, 21, 58, 68–69, 92, 112–113, 180–181
 - employability 14, 73
 - employment 73, 98, 119–120, 141, 162
see also future work/study; unemployment
 - English First Additional Language (FAL) 102

English language 60, 71, 102–103
 entrepreneurial pathway 117–118
 environmental conversion factors 76,
 81–84, 97–100, 112–113, 131–132
 environmental impact theory 53
 epistemic contribution capability
 domain 13–14, 58–59, 59–61, 91–93,
 135–136, 160, 162, 171–172
 ‘epistemic humility’ 6
 equality 5, 27, 30, 53–54, 159
see also inequality
 ethics 12, 19–20, 109
 ethnic discrimination 71–72, 101, 113
 exclusion 49–50
 extended degree programme 76
 extra-curricular activities *see* non-
 academic participation

F

family

accommodation 76
 as conversion factor 88–89, 166, 168
 funding 77–78
 moving on and 129–130, 135
 poverty 38, 44, 48–49, 94, 128
 support from 80, 100, 143, 149,
 150–151
 at university 44, 66, 139
 fees *see* university fees
 fees-free higher education 40, 48, 61
 #FeesMustFall protests 5–6, 61,
 110–112, 111, 113, 144, 163
 fields of study 122–124, 134, 135, 150,
 169
 finances *see* funding
 ‘first in family’ 85, 86, 89, 142
 Fongwa, S 134
 food insecurity 36, 37, 49, 51, 77
 Fraser, N 69–70
 freedoms 3, 17–19
 Fricker, Miranda 59, 60
 friends 130
 functionings
 definition of 3, 13, 18
 identifying of 56–73, 58
 importance of 157–158
 learning outcomes as 28–32, 28

measurement of 171–182
 Miratho Matrix and 159
 of Miratho Project students 141, 144,
 145, 147, 148, 149–150, 152, 162
 practical operationalisation of 160,
 161

funding

access to technology and 96
 as conversion factor 77–79, 84, 87,
 94, 95, 112, 162, 166, 169
 emotional balance domain and 69
 inclusion and participation domain
 and 70–72
 for Miratho Project students 95,
 139–143, 146–147, 148, 150–152,
 153–154
 moving on and 117, 126–128, 127,
 135, 169
 poverty and 45–46, 49, 53
 sources of 95
 welfare element of 38, 94, 161

Funza Lushaka bursary 78, 95, 119

further study pathway 116–117, 116,
 162

future work/study 14, 58–59, 72–73,
 92, 128–129, 148, 152, 181–182

G

‘gap years’ 78
 Gasper, D 55–56
 gender, as conversion factor and
 capability 162–163
 gender differences in education 12, 41
 gender discrimination 42, 72, 113
 gender inequality 27, 65, 100–101,
 130–131
 gender roles, occupational 108
 gender stereotypes 83
 geography
 access to technology and 128
 conversion factor tables for Ntando
 165, 168
 as environmental conversion factor
 81–83, 112, 139
 information and 86
 moving on and 132, 135
 student accommodation 97, 98

Gini coefficient by race 36
 Global Multidimensional Poverty Index 27
 Goetze, TS 6
 'goods' 35
 Govender, P 81
 grade 10 subjects, choosing of 85, 87
 grade 12 results 2, 79–80
 grades 30, 90, 169
 grants *see* social grants
 Green, D 163

H

Hanushek, EA 24
 hardship
 acute 46, 47–48
 definition of 15, 45–48
 intermediate 46–48
 limited 46, 47–48
 Miratho Project students 11, 32–33, 47
 see also poverty
 health 51
 Heinz, W 133
 HEMIS *see* Higher Education Management Information System
 HESA *see* Higher Education South Africa
 higher education
 capability approach and 17–18, 20–22
 importance of 4, 158
 see also university
 Higher Education Act of 1997 43
 Higher Education Management Information System (HEMIS) 12, 26
 Higher Education South Africa (HESA) 42
 Hoffmann, N 19–20
 homelands 3, 37
 horizontal inequalities 52, 160, 171, 173
 hot knowledge 85–87
 Hughes, C 22
 human capital 4
 human development 2–5, 20
 Human Development Index 36
 Hussey, T 25, 30–31

I

'imperfect justice' 18
 inclusion and participation capability domain 14, 58–59, 59, 69–72, 92, 144, 152, 154, 177–178
 income 36–37, 37, 119, 165
 individualism 62–63
 inequality
 academic participation and 100–101
 capability approach and 3–5, 171–181
 categories of 52
 conversion factors and 36, 40
 higher education and 158
 horizontal 52, 160, 171, 173
 impact of 163
 moving on and 130–131, 134
 university access and 75–76, 91
 vertical 52, 160, 171, 173
 see also equality
 information
 as conversion factor 21, 84–91, 100
 Miratho Project students 141, 146, 153, 165, 166, 169
 moving on and 128–129, 135
 from schools 80–83
 institutions, learning outcomes at level of 31–32
 intermediate hardship 46–48, 47
 internet access 39, 83, 86–88, 95–96
 internships 118–119

J

Jansen, JD 24
 judgements about student success 158–159

K

knowledge acquisition 31, 93
 see also information
 KwaZulu-Natal (KZN) 37

L

labour market opportunities 121–126, 141, 150, 154, 162, 169
 language 71, 79, 101, 102–103, 102, 113

- laptops 96, 96
- leadership 123–124
- learnerships 118–119
- learning, approaches to 103–104, 113, 153
- learning arrangements 104–107
- learning outcomes 22–33
 - as capability-based key functionings 3, 13, 28–32, 28
 - criticism of 24–26
 - history of 23–24
 - institutions and 31–32
 - measurement of 26–28, 32
 - modules and 30–31
 - politics of 23–26
 - programmes and 31–32
 - teaching sessions and 30–31
- lecture model 104, 113
- lecturers, support of 106–107, 140, 149, 151, 168
- Le Grange, L 31–32, 62
- life histories of students
 - Aphiwe: Provincial 145–148, 153
 - conversion factors and 153–154
 - Madoda: Rural 148–150, 153–154
 - Mashudu: Metro 138–141, 154
 - Rimisa: Country 150–152, 153
 - Sonto: City 142–145, 153
 - value of life-history method 137–138
- life-history interviews 7–11, 52–53, 56
- limited hardship 46, 47–48, 47
- Limpopo 37
- Longshore Smith, M 158
- long-term planning 78, 91, 133
- Lozano, JF 21
- Luque, JA 24
- M**
- Madoda: Rural (life history) 148–150, 153–154
- managerialism 25
- marking 31
 - see also* assessment methods
- Martinez-Vargas, Carmen 40
- Mashudu: Metro (life history) 138–141, 154
- material conversion factors 76, 77–79, 94–96, 112, 126–128
- material resources *see* funding
- maths vs maths literacy subjects 85
- McLean, M 93
- measurement 25–28, 32, 74, 171–182
- merger of universities 42
- Metz, T 19–20
- micro-aggression 101
- Miratho Matrix 31–32, 55–74, 74, 157–159
 - generation of 73–74
 - identifying capability domains 13–15, 56–73
 - identifying functionings 56–73
 - method to select capabilities 55–56
 - process of developing 55–74, 159
- Miratho, meaning of term 1
- Miratho Project 1–16, 7, 8, 9, 22, 110, 157
- misrecognition 6, 69–70
- money *see* funding; income
- Moses, E 44
- moving on from university
 - conversion factors and 121–136, 169–170
 - pathways 115–121, 116
- N**
- narrative capability domain 14, 57, 58, 59, 59, 67–68, 175–177
- narrative functioning 141, 152
- Nathan, O 133
- National Commission for Higher Education (NCHE) 4–5
- National Skills Foundation (NSF) 78, 95, 148
- National Student Financial Aid Scheme (NSFAS) 40, 43, 61, 95, 119, 126–127, 142, 147, 151
- ‘navigational capital’ 65
- navigation capability domain 14, 58, 65–67, 113, 141, 149, 174–175
- navigation functionings 135, 152, 153
- NCHE *see* National Commission for Higher Education

networks 21, 129–130, 135, 170
 non-academic participation 110–112,
 140–141, 168
 NSF *see* National Skills Foundation
 NSFAS *see* National Student Financial
 Aid Scheme
 Ntando: Provincial (life history) 52–53,
 165–170
 nursing 123
 Nussbaum, Martha 3, 13–14, 21, 68–69
 NVivo software 10, 56

O

objective conversion factors
 economy 36–40
 society 36–40
 university 40–44
 obtained degree/diploma 121–122, 122,
 169
 OECD *see* Organisation for Economic
 Co-operation and Development
 old-age pensions 36
 O'Neill, Onora 163
 opportunities 3, 19, 35
 Organisation for Economic
 Co-operation and Development
 (OECD) 25–26, 75
 outcomes-based education 23–25, 32

P

participation capability domain 14, 21,
 58–59, 59–61, 69–72
 academic participation 93–109
 conversion factors and 112–114
 measurement of 171–172, 177–178
 Miratho Project students 141,
 143–144, 149, 152, 154, 166–169
 non-academic participation 110–112
 participatory research 6–7, 11
 Pauw, K 123
 pedagogical arrangements 61, 162, 167
 'pedagogic rights' 70
 Pekrun, R 68
 personal conversion factors 22, 76,
 90–91, 110–112, 132–135, 162
 of Miratho Project students 139,

141, 142, 146–147, 148, 150, 152,
 153, 166, 169, 170

Phelps, TG 67
 photovoice project 7, 11–12, 110, 113,
 144, 147, 152
 'phronetic' research 5
 'pipeline' strategies 118
 planning 78, 91, 133, 141, 144, 148
 policies 42, 43, 158, 160
 political participation 61, 70, 111–112
 politics of learning outcomes 23–26
 poverty 3–4, 11, 17–22, 36–37, 37,
 44–51, 51, 72–73
 see also hardship
 practical operationalisation of ideas
 160, 161
 practical reason capability domain 14, 21,
 45, 57, 58–59, 64–65, 135, 152, 172–174
 programmes, learning outcomes at level
 of 31–32
 protests by students 5–6, 15, 31, 61,
 110–113, 111, 125, 144, 163
 public transport *see* transport
 Pym, J 103

Q

Quality of Life Index 37
 quality of schooling 20, 38

R

race, university enrolment by 41
 racial discrimination 40, 42, 65, 71–72,
 113, 130–131, 162–163
 racial inequality 4–5, 27, 36, 100–101,
 130–131, 169
 Readings, B 24
 Reay, D 103
 relationships
 importance of 19–20, 53–54, 57, 158
 Miratho Project students 152–153,
 168, 170
 moving on and 129–130, 135
 poverty and 46
 as social conversion factor 107, 113
 reputation of universities 124–126, 130,
 132, 135, 141, 170

#RhodesMustFall protests 5–6, 111, 113
 Ricoeur, P 67
 Rimisa: Country (life history) 150–152, 153
 Robeyns, I 19, 35, 158
 rote learning 103
 rural areas 37, 39, 73, 82, 86, 126, 132

S

schools
 as educational conversion factor 79–81
 importance of 76
 Miratho Project students 139, 142, 147, 148, 165–166
 quality of 20, 38
 quintiles 38, 38, 79–81
 Schreiber, B 53
 self-efficacy 90
 self-narrative of students 50
 self-reliance 153
 Sen, Amartya 3, 18, 23, 35, 53, 74, 157–159
 Seward, C 158
 significant others 88–89, 146, 148, 151, 152, 153, 166
 skills employers require 123–124
 Smith, L 88
 Smith, P 25, 30–31
 Smith, Tuhiwai 6
 social class 72, 100–101, 113, 131
 social conversion factors 76, 84–91, 100–101, 113, 128–131
 social grants 36, 76, 84
 social justice 4, 19, 21
 social mobility 29, 44, 72–73
 social relief of distress grant 36
 socio-economic class *see* social class
 Sonto: City (life history) 142–145, 153
 South African Census (2011) 13
 Southern scholarship 5–6
 Spaul, Nic 2, 79–80
 Spiegler, T 75
 Stenhouse, Lawrence 24, 31
 storytelling *see* narrative capability domain
 Strathern, M 25

student associations 111–112
 student hardship *see* hardship
 success rates (completion rates) 12, 42
 support from others 83, 100, 128–129, 135, 141, 146, 153–154, 169

T

teachers 73, 79, 81, 89, 123, 148, 150–151
 teaching arrangements 104–107, 152
 teaching sessions, learning outcomes at level of 30–31
 technical schools 80, 85
 technology, access to
 electricity, lack of 83
 epistemic contribution domain and 60
 as material conversion factor 95–96, 96, 112, 128–129
 Miratho Project students 150, 170
 statistics 39, 39, 96
 technology-based learning 4, 27
 television 83, 86
 tenacity *see* determination
 ‘territory of justice’ 159
 Terzi, L 20
 ‘testimonial injustice’ 60
 Thompson, Paul 137
 ‘threshold’ learning outcomes 30
 Thusanani Foundation 8–9, 78, 86–87, 89–90, 94, 95, 100, 125, 142–143, 151
 Times Higher Education rankings 42
 timetables *see* class timetables
 Tomorrow Trust 95, 140
 training 118–119
 transformation 3–5, 21–23, 43, 93, 107–109
 transport (travel) 37, 51, 82, 97
 tutorials 105
 Tyler, Ralph 23

U

ubuntu capability domain 14, 57, 58, 59, 59, 61–64, 157
 measurement of 178–180
 Miratho Project students 141, 145, 147, 149, 152

- participation capability domain and 113–114
- poverty and 19–20
- practical reason capability domain and 65
- Ul Haq, Mahbub 3
- UNDP *see* United Nations Development Programme
- unemployment 36–37, 73, 120–121, 120, 124, 134–135, 144–145, 150
see also employment
- Unesco 4, 75
- United Nations Development Programme (UNDP) 2, 45
- university access 2, 43–44, 87, 162
- university conditions 98–100, 99, 113, 160, 161, 162, 167
- university enrolment 2, 41
- university fees 40, 41, 48, 51, 61
- university mergers 42
- university reputation 124–126, 130, 132, 135, 141, 167, 170
- Unterhalter, E 27, 52

V

- values 64, 90–91, 133–134

- Van Broekhuizen, H 39
- Van der Hoeven, R 45
- Van Schalkwyk, F 4–5
- vertical inequalities 52, 160, 171, 173

W

- Walker, M 134
- Watts, M 67
- well-being of students 48–51
- West-centric knowledge practices 5–6
- Western values 62
- WhatsApp 9, 96, 104, 105
- WiseUp 105
- Wolff, J 45
- World Bank 3, 24, 36

X

- Xie, A 103

Y

- Yosso, Tara 14, 28, 65
- Young, Marion 24
- YouTube 95–96, 104

